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MILITARY-POLITICAL ISSUES

SOVIET VIEW OF U.S.-USSR RELATIONS

Moscow SOVIET MILITARY REVIEW in English No 2, Feb 82 pp 49-50

[Article by Col E. Asaturov: "USSR-USA: Dialogue, Not Confrontation"]

[Text]

"We will conduct both talks fairly and constructively, striving for a fair agreement, with due regards, of course, for the security interests of the Soviet people, its friends and allies."

L. Brezhnev (from the answers to questions put by the Editors of the West German magazine "Der Spiegel").

THE IMPROVEMENT in Soviet-American relations in the early 70s and the ensuing détente strengthened the nations' belief that it was possible to curb the arms race, cleanse the international climate and preserve peace. The keynote of that period — the American leaders' serious approach to armaments control, particularly in the field of strategic nuclear weapons, and the line they adopted of broadening economic relations and their agreement to discuss principles capable of establishing a safer and more stable framework for competition between the two countries —, changed the structure of mutual relations between the USSR and the USA.

However, at the turn of the 80s, the politics of the United States made an abrupt swing. The increased aggressiveness of US imperialism resulted in the present aggravation of the world situation. The advocates of using force in international relations who refuse to recognise the historical changes that have taken place in the world regained the upper hand. They set themselves the aim of changing the state of affairs in the world to their advantage regardless of the cost and included virtually the whole world in the sphere of US "vital interests." Through their fault Soviet-American relations were cut down to an all-time low, and the dialogue between the two great powers was broken off. The US Administration shelved the SALT-2 Treaty, brought the series of armaments control talks to an impasse, disrupted trade and jeopardised scientific and technological cooperation. The result of this obstructive policy of the USA was a return to the cold war level of military rivalry between the two states.

The present American leaders prefer rules of antagonism to those of détente, what they want is confrontation and not a dialogue. They are displaying increasing obstinacy in burning the bridges erected by the joint efforts of East and West in the 70s. In the military field, their determination to plunge the world back into distrust and hostility, to wreck the achievements of détente, is leading them to attempts to disrupt the strategic balance and gain superiority over the USSR in order to pursue their policy of world mastery and expansion from positions of strength. Their line of global confrontation with the Soviet Union is supplemented by efforts to guarantee by force the regional interests of American imperialism.

The military-strategic equality which has taken shape between the USSR and the USA does not suit the present American Administration because it impedes the United States' aggressive intentions on the world scene and limits its expansionist actions. Consistent efforts are being made in all directions to implement the Pentagon's military strategy aimed at preparing to unleash big and small wars. President Carter's notorious Directive No. 59 which set the aim of reconciling people to the idea of possible nuclear missile war has not been shelved. The process of US superarmament is going on at an accelerated pace with the aim of creating superiority over the USSR in all types of strategic and conventional weapons.

According to the AP agency some 450 military programmes have been drawn up in the USA. They include work for the deployment of MX intercontinental ballistic missiles, missile-carrying submarines, the construction of a new strategic bomber, and an atomic super-aircraft carrier, and so on. Development of laser, cosmic and other weapons until recently considered fantastic is proceeding at accelerated rates. There are plans for expanding production of chemical weapons. The decision has been taken to produce the neutron weapon. The forces are being supplied with new types of conventional weapons in huge quantities, and it is planned to expand the armed forces by nearly a quarter of a million men by 1986. "The New York Times" admits that there has never been such a large-scale and expensive military programme in the history of the USA.

The Reagan Administration has proclaimed achievement of military superiority over the USSR as the primary goal over the next few years. The military expenditures of the USA and its NATO allies have sharply increased. Military allocations for the Defence Department alone in the current 1982 financial year will be increased by more than 40,000 million dollars and will total 226,000 million. By 1986 the US military budget will be 367,500 million dollars.

The aim of achieving superiority is being pursued not only in strategic weapons, but also as regards conventional armaments capable of being used for punitive operations in various parts of the world.

But to achieve in the 80s what proved impossible in the 50s when the Soviet Union was healing the wounds of the Great Patriotic War of 1941-45 is a hopeless plan. If the USA could not then achieve decisive military superiority

over the USSR capable of being put to use in politics, still less can it hope to do so now, when the Soviet Union has a powerful economic and military potential. The USSR has the possibility to preclude US superiority. As a result, the equilibrium will still be preserved, but at a higher and more dangerous level. The leaders of the Soviet Union and of the other socialist countries have affirmed this more than once. "It would be better to cast aside dreams of military superiority over the Soviet Union," declared General Secretary of the CPSU Central Committee, Chairman of the Presidium of the USSR Supreme Soviet, Leonid Brezhnev in his reply to the editors of the West German "Der Spiegel." "If necessary the Soviet people will be capable of any effort, of all that is required to ensure the reliable defence of their country. It would be far more reasonable and realistic to speak about maintaining the already existing equality, which as experience shows, provides a fairly good basis for the preservation of peace."

The Reagan Administration has openly adopted the line of undermining one after the other many treaties and agreements. Outright threats are heard across the Atlantic not to refrain, in relations with the USSR, even from use of arms, nuclear weapons included. The SALT-2 agreements are being disregarded. The treaty on the limitation of anti-missile weapons is called in question. The USA has unilaterally refused to discuss a number of important military problems. Talks have been wrecked on matters pertaining to the Indian Ocean, to restrictions on sales and deliveries of conventional arms, and to general and complete banning of nuclear weapon tests; talks on arms and troops reductions in Central Europe have been blocked.

The ideological and propaganda cover for the US Administration's line of confrontation with the USSR and of military preparations is the lie about a "Soviet military threat": without the fig leaf of a "Soviet threat" the Pentagon would be in the position of militarism's naked king. This malevolent and dangerous myth has nothing in common with the real situation, with the facts.

While the myth of a "Soviet military threat" is used above all to justify the arms race in the USA, the calumnious talk about USSR complicity in "international terrorism" in the West serves mainly as a basis for direct intervention by American imperialism in the sphere of national liberation in regions which are declared US "spheres of interests."

In all this Washington seems to forget that it was the USA itself that set up a separate armed forces command in the Persian Gulf in addition to a similar one for an armada in the Indian Ocean, and that intensive work is being carried out to provide conditions for expanding the permanent bases of US forces in the Middle East and East Africa while the creation of the Pentagon's "fire brigade" — rapid deployment force — is already an accomplished fact.

By its talk about USSR complicity in "international terrorism" the US Administration hopes to justify its persistence in imposing the principle of linking problems of Soviet-American relations with East-West relations as a whole. US politicians make development of these relations dependent on questions which have nothing at all to do

with them and which concern international political activities of the USSR and other socialist countries considered "undesirable" by the USA. In particular, the prospects of the Soviet American SALT talks are linked with the policy of the USSR on international support for the peoples' struggle for their freedom and independence, against aggression and imperialist interference. It is quite clear that such clumsy efforts are absolutely hopeless.

For its part, the Soviet Union persistently continues its efforts to implement its clear and constructive Peace Programme for the 80s, the main aim of which is to prevent a thermo-nuclear catastrophe. In his answer to a question from "Pravda" Leonid Brezhnev said: "Only he can start a nuclear war in hope of emerging as the victor in it who has made up his mind to commit suicide. However strong the attacker and whatever method of unleashing nuclear war he might choose, he will not be able to achieve his ends. Retribution will inevitably follow." Life itself dictates the need to found relations between states with different social systems, above all in the nuclear age, on the principles of peaceful coexistence, which presupposes a lowering of the level of military confrontation, a constant constructive dialogue, and development of mutually advantageous peaceful cooperation. Andrei Gromyko, member of the Political Bureau of the CPSU Central Committee, Minister of Foreign Affairs of the USSR, clearly reiterated this in September 1981 from the tribune of the 36th Session of the UN General Assembly.

The present state of relations between the USSR and the USA and the urgency of the international problems requiring a solution make dialogue at all levels, and an active dialogue at that, a matter of imperious necessity. As Leonid Brezhnev emphasised: "We are prepared to have such a dialogue. Experience shows that the crucial factor here is meetings at summit level. This was true yesterday, and is still true today."

Washington, after balking at the idea for a long time, has agreed to enter into talks with the Soviet Union on the limitation of medium range nuclear missile systems in Europe. The meeting between Andrei Gromyko and A. Haig in Geneva in November-December 1981 allowed agreement to be reached on resumption of the discussion on limiting strategic weapons.

Time has shown, however, that the affirmative reply of the USA to the Soviet invitation to a dialogue was merely a forced tribute to world opinion and America's allies, who realise the great significance of Soviet-American relations, and a sort of compensation for refusal to sign the SALT-2 Treaty. And doubts whether that step of the US Administration is not only an attempt at gaining time to complete its intended military programmes have not yet been dissipated.

The military-political course of the present US Administration presents a threat not only for the Soviet Union and the socialist countries, but also for the developing countries, for the whole world. When efforts are made in the biggest capitalist country to render ineffective the brakes on insanity and the wild arms race, a danger hangs over the whole of mankind.

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MINISTRY OF DEFENSE AND GENERAL STAFF

ARMY GENERAL A. YEPISHEV ON TROOP MORALE

Moscow SOVIET MILITARY REVIEW in English No 2, Feb 82 pp 2-4, 6

[Article by Army Gen A. Yepishev, chief of the main political directorate of the Soviet Army and Navy: "Unfailing Morale" under the rubric: "Combat Potential of the Soviet Armed Forces"]

[Text]

IN DIRECTING the Soviet Armed Forces in all their aspects the Communist Party of the Soviet Union pays special attention to building up the morale of the servicemen so that they should be prepared courageously to defend their Socialist Homeland. As the building of communist society proceeds its socio-political unity is strengthened and ideological work helps develop in the defenders of the country firm ideological convictions, class consciousness and discipline and the ability to make maximum use of the capabilities of their weapons to rout any aggressor.

Unity of material and spiritual factors in war always played a decisive role. The greater the potential of every component, the higher the overall combat potential. If the role of any of these components is decreased the combat capabilities of the Armed Forces will suffer.

The 26th CPSU Congress stated that the combat potential of the Soviet Armed Forces is a durable alloy of high technology, military skill, and indomitable morale. In other words, the education and training of servicemen are placed on a par with the provision of units and ships with the latest weapons and other combat equipment. This emphasises the increased responsibility of commanders, political organs, Party and Young Communist League organisations maintaining high morale in the army and navy.

High morale means above all mobilisation of all active aspects of the army's and navy's intellectual potential, i. e. a concentrated expression of the organising role of communist ideology and ethics, the servicemen's patriotism, internationa-

lism, heroism, courage, discipline and comradeship. In the final count what it comes to is the unshakable fighting spirit of the Armed Forces, their readiness and ability to carry out any combat training mission and, in the event of war, to endure the greatest hardships, to retain the will to secure victory. History has convincingly corroborated the idea of V. I. Lenin:

"In the final analysis, victory in any war depends on the spirit animating the masses that spill their own blood on the field of battle."

In life we rightly identify the morale of the troops with their political consciousness, thus emphasising the decisive role played by political ideas, knowledge, and ethical feelings in the sentiment and moral strength of the army and navy. During the war the Soviet Command took into strict account the political and moral condition of the armies, divisions and units. Troops distinguished for their fighting spirit and staying power were placed on the most crucial sectors of the front. Weapons acquired additional capabilities in the hands of such men.

Lenin's ideas about the defence of the Socialist Homeland, the policy of the CPSU and the objective need to maintain the Armed Forces in constant combat readiness are vital spiritual stimuli for improving the men's fighting proficiency, raising disciplinary and organisation standards. The accomplishment of these tasks is also promoted by the moral steeling of the servicemen, the welding together of military collectives and the affirmation of their communist ethical standards.

Effective leadership of the forces implies that all the socio-ideological and socio-psychological elements of morale should be carefully taken into account. The former cover in full the political aims and tasks of communist upbringing, the defence of socialist achievements, theoretical views, while the latter include public opinion, tradition, customs and other ideas that take shape under the direct impact of conditions of service and military operations. Therefore, in building up the men's morale it is essential constantly to watch the progress in their ideological education, the growth of their political consciousness, the moral atmosphere in collectives, and their will to carry out their duties efficiently, because these factors help maintain the combat spirit of the troops at the required level to ensure the execution of any missions.

In analysing the elements forming the fighting potential of the Armed Forces we proceed from the fact that the role of morale is of greater im-

portance at present than in the past. This is due above all to the character of the possible war which the imperialists are preparing against the socialist countries. Politically, it can only be a decisive class clash between the two opposite social systems. If the imperialists manage to unleash such a war, it will be uncompromising and will therefore require the utmost mobilisation of the moral strength of the army and navy. It will require every officer and man to display courage and self-sacrifice.

The rising role of the morale of the land and naval forces is further determined by the development of modern weaponry and combat equipment, the appearance of new forms and methods of armed struggle, and the character of modern combat which is distinguished by extreme intensity, decisiveness and mobility. To stand up to the test modern combat imposes on manpower and to secure victory, officers and men must exhibit high morale, political consciousness, psychological stability and high combat activity.

Already today combat alert duty and ocean cruises leave a definite imprint in the minds and behaviour of the personnel. Officers and men carrying out such missions actually live according to the laws and standards of combat conditions, being in a state of constant combat readiness, constant readiness to rebuff the attack of any aggressor.

The indomitable morale of the Soviet Armed Forces rests on a sound foundation. It is a product of the socialist social and political system, it is conditioned by the communist world outlook and Marxist-Leninist ideology which have asserted themselves in the social consciousness of the people itself. The morale of the army is based on the moral strength of the people moulded by the Communist Party.

The victory of the Great October Socialist Revolution created the preconditions which enabled the masses to assimilate genuinely scientific ideas of the revolutionary transformation of the world. The Revolution has enhanced the role of the conscious element in building a new society and defending it by armed force. At every successive stage of the great constructive effort the moral forces of socialist society, of the Soviet people operated as an increasingly potent catalyst of social progress. They demonstrated their indisputable advantage over the illusions, prejudices and morals of the capitalist world.

The indomitable moral strength of the Soviet

people and their servicemen was a vital source of the victory of the USSR in the Great Patriotic War. Though the enemy was better equipped in the beginning of the war, the Soviet forces always possessed a superior morale. They knew they were fighting for a righteous cause, the cause of communism. They boundlessly loved their Socialist Homeland. And these moral factors enabled the Soviet forces to halt the aggressor's offensive and then to inflict a crushing defeat on him. The ideas of communism and fraternity of working people in all countries, the ideas of humanism and collectivism won a convincing victory over the cannibalistic ideology of nazism.

Now the aggressive circles of the USA and other NATO countries continue to build up their nuclear stockpile.

According to the Pentagon's plans launching pads for new American medium-range missiles are being built in some West European countries. Under the pretext of a "Soviet military threat" the USA has issued orders for the production of neutron bombs.

These circumstances oblige the Soviet state to enhance its defensive power.

The Soviet Union concentrates its efforts on strengthening and encouraging détente, curbing the arms race unleashed by the imperialists and eliminating the danger of war. L. I. Brezhnev said in his interview with the editor of the West German "Der Spiegel" that the USSR does not threaten anybody, since its military doctrine is purely defensive.

To build up an unshakable morale of the forces it is vital to realise the causes of the increased war danger, to analyse the changes occurring in the military-political situation and to draw the relevant conclusions on raising the level of combat readiness.

Under advanced socialism the role of social consciousness is mounting. The ideological convictions of the Soviet people, their moral steeling, their rising educational and cultural standards powerfully induce them to engage in creative effort and to feel greater responsibility to the whole of society. As it was stated at the 26th CPSU Congress, Soviet man has changed. He is better equipped with knowledge, his erudition has broadened and his spiritual needs have grown immeasurably.

The changes that have taken place in the social and spiritual make-up of Soviet people have had a favourable effect on the moral strength of the army and navy. Fulfilment of the plans for com-

unist construction, steady improvement of the Party's ideological work, and of the military-patriotic education of youth have a beneficial effect on the personnel of the army and navy. The increasing proportion of industrial workers in the Armed Forces directly affects the moral and ideological condition of servicemen. Another factor which exercises a positive influence is that 40 per cent of the personnel coming from rural areas are machine operators. Ninety per cent of all young men called up for military service are members or candidate members of the CPSU or members of the Young Communist League.

The educational standards of draftees are now much higher. In 1976 72 per cent of them had higher or complete secondary education, 27 per cent, incomplete secondary (eight-year) education, and only 0.8 per cent, seven-year education. Today practically no soldier has education lower than that of the eight-year school. The proportion of servicemen with a higher or complete secondary education is close to 80 per cent. Nearly 35 per cent of the draftees have trades or professions in industry or farming.

These factors open up further possibilities for increasing the moral strength of the army and navy. As an element of the combat potential of the Armed Forces, morale is characterised by high political consciousness, moral maturity and social activity. In the Report to the 26th CPSU Congress Comrade L. I. Brezhnev said:

"Sons and grandsons of heroes of the Great Patriotic War are now in the ranks of the defenders of the Soviet Union. They have not gone through the grim trials that fell to the lot of their fathers and grandfathers. But they are devoted to the heroic traditions of our army and our people. Whenever the interests of the nations' security and the defence of peace require it, and when victims of aggression have to be helped, the Soviet soldier appears before the world as a disinterested and courageous patriot and an internationalist prepared to face any hardship."

The increased moral strength of the Soviet Armed Forces is a product of the greater possibilities of advanced socialist society, the formation of a new social and international community known as the Soviet people. At the same time the indomitable spirit of the army and navy is the result of the CPSU's vigorous ideological work, the educational efforts of the military councils, commanders, political workers, Party and YCL organisations.

Combat training, and work for efficiency in carrying out training missions exercise an influ-

ence on the minds of the servicemen when every drill and lesson is given the political background which helps the men to understand their tremendous individual responsibility for the security of the Homeland. Servicemen's thorough knowledge of the Party's conclusions on the present military-political situation in the world and on this basis the formation of their attitude towards the threat of war as a stern reality are of great significance in strengthening morale.

Army exercises, launching of live missiles, flights, combat alert duty, ocean cruises of submarines and surface ships strengthen the morale of the servicemen and steel them politically and psychologically. These forms of duty are a source of invaluable experience, they create psychological models which give a clear idea of how to train and educate servicemen so that they meet in maximum degree the requirements of actual combat.

This may be illustrated graphically by the tactical exercises "Zapad-81" which were held in the Byelorussian and Baltic military districts and in the Baltic Sea area. Operating in a highly dynamic and complicated situation the land and naval forces convincingly demonstrated a firm alloy of perfect technical equipment, high combat skill and unconquerable will.

Active service is of great educational value only if it is organised along scientific lines, if it has the required material-organisational and moral-political backing. In the light of the decisions of the 26th CPSU Congress Party influence on staffs, troop administrative control and other command agencies is of the utmost importance. The application of scientific principles in servicemen's instruction, training and education depends on army and naval cadres. These principles take into account the requirements of modern warfare and the recommendations of military pedagogy and psychology to ensure effective use of the experience acquired in the Great Patriotic War and in mastering modern weaponry.

In a certain sense morale depends also on the development of weaponry, military equipment and on progress in the execution of training missions. It is logical that more advanced weaponry and mastery thereof raise the morale of the men and inspire them with confidence in their capabilities.

Military discipline is a vital indicator of troop morale. Meticulous observance of socialist legality, the Oath of Allegiance, the regulations and manuals by all servicemen contributes to the fulfilment of all missions, big and small.

The commanding officer plays a decisive role in educating disciplined and expeditious service-



**General of the Army A. YEPISHEV,
Chief of the Main Political Administration
of the Soviet Army and Navy**

men. He bears full responsibility to the Communist Party and the Soviet Government for constant combat and mobilisation readiness of the unit or subunit. He organises the life, training and combat activity of his men and ensures the necessary living conditions. Fairness coupled with exactingness on the part of the commander trains the men to be smart and constantly alert.

Socialist emulation creates powerful incentives to progress in combat proficiency. The 26th CPSU Congress pointed to the ideological-educational and socio-political role of emulation. It stated that emulation helps men understand their duty to society, that it produces models of heroism and self-denying effort in labour.

The style of work of officers, their Party spirit, principledness, efficiency and the personal example they set are important morale-building fac-

tors. Success in the accomplishment of a mission largely depends on close contact between officers, generals and admirals, on the one hand, and other ranks, on the other, on the ability to create an atmosphere of mutual confidence to enable the men to reveal their aptitudes and to say what is on their mind. Care to ensure cohesion of service collectives, full use for educational purposes of the social forces in the army and navy are of great benefit to the consciousness, sentiments and behaviour of servicemen and help develop in them high moral and fighting qualities.

Soviet servicemen whole-heartedly approve the CPSU's home and foreign policy, they are concentrating their efforts on accomplishing the tasks set by the 26th CPSU Congress in building up the defence capacity of the USSR. Boundlessly devoted to the Homeland and the great ideals of the CPSU, the Soviet Armed Forces are closely rallied round the Leninist Party's banner to guard the peaceful constructive effort of their people and to defend the achievements of socialism.

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ARMED FORCES

COLONEL GENERAL O. KULISHEV ON COMMANDER'S RESPONSIBILITY

Moscow SOVIET MILITARY REVIEW in English No 2, Feb 82 pp 10-11, 14-15

[Article by Col Gen O. Kulishev; Commander-in-Chief Order of the Red Banner Trans-Caucasian Military District: "The Commander's Responsibility"]

[Text]



Oleg Fyodorovich Kulishev began service in the USSR Armed Forces in 1946. After graduating from a military school he commanded successively a platoon, company, battalion, regiment, division, corps and army. From 1975 to 1978 he was Commander-in-Chief of the Northern Group of Forces. At present he is Commander-in-Chief of the Order of the Red Banner Trans-Caucasian Military District.

Colonel-General O. F. Kulishev is a deputy to the USSR Supreme Soviet and was a delegate to the 25th and 26th CPSU congresses. He has been awarded many Soviet Orders and medals.

AT THE 26TH CPSU Congress L. I. Brezhnev stressed that in present conditions the significance of discipline and personal responsibility is increasing enormously. This applies in full to military cadres. The commander has always been the central figure in the forces. He organi-

ses the educational process, trains and educates his subordinates, issues orders, takes decisions and sees to their exact and timely fulfillment. Responsibility for his decisions and actions is linked inseparably with the one-man command principle, because in the army, more than anywhere else, the strictest unity of actions of large masses of men and subordination of their will-power to the will-power of one person — the commander, is a necessity. It is not by chance that the USSR Armed Forces Interior Service Regulations state that the commander carries full responsibility for the combat and political training, education, military discipline and morale of the personnel.

It is impossible to fulfil numerous duties without possessing the ability to single out the principal directions and determine correctly the ways and means of solving urgent problems. And these, we know, may vary very widely. Therefore it is worthwhile examining in detail the more important features distinguishing the work of a commander.

PRIMARY CONCERN

Commander's main efforts are directed at steadily improving combat readiness. It reflects the training level achieved by commanders, staffs and forces, combat teamwork of subunits, units and formations, and the ideological and political education of the men. The more intensive the training of the forces and staffs, and the more fully it answers modern requirements, the better is the quality of fulfilment of educational tasks and the higher is the degree of combat readiness.

There is no limit here and every officer must be anxious to know the condition of the subunits and units under his command. Are they able to carry out orders immediately? Are they ready to act in the conditions of modern battle? Combat training gives the answers to all these questions. Different kinds of drills, firing, driving, steering, tactical, command and staff exercises, in the course of which the troops learn to fulfil various assignments, help to determine objectively their training level and to make in due time the necessary corrections in the educational process.

There exist certain regularities here: the quality of the troops' training and education depends on the level of the officers' training. Their deep and multifaceted professional knowledge, high tactical and firing skill, mastery of methods

and a striving to pass on their knowledge are a guarantee of the subunits' and units' excellent combat standard.

Experience convinces us that success is achieved by the commander who knows his profession to perfection, persistently studies the Marxist-Leninist theory, has solid military and technical training, is able to use scientific methods of directing the forces and understands the development trend of tactics and strategy.

Naturally the question of the officers' ideological steeling is in the foreground. Communist consciousness and conviction determine their activeness in implementing the Party's policy and develop the sense of responsibility for the assigned task and for the constant improvement of their knowledge. In a word it is that firm foundation on which the correct understanding of the essence of the qualitative changes taking place in the armed forces under the influence of the scientific and technical revolution, and the creative attitude to the fulfilment of their duties are based.

A striving for creativity is an inalienable feature of the commander's style of work. To march in step with the times today means to look forward, to work with an eye to the future and to persistently master the achievements of military science. What satisfied us just recently cannot satisfy today. Equipment, weapons and means of control are constantly improving. On the basis of scientific and technical progress the combat possibilities of the forces are developing, their mobility and manoeuvrability are being raised and new elements are being introduced into the character of battle. Much that is new in forms and methods of training and educating the personnel appears in this connection and demands on officers' professional training are rising.

Great attention is given to the solution of these questions in our military district. Studies in the system of commanders' training, tactical exercises conducted with due account of the peculiarities of combat operations against a strong, well trained and technically equipped enemy, pursue this goal. Special concern is given to working up firm skills in directing subunits. Of course a commander must be able to fire accurately with various types of weapons, he must know the equipment to perfection and be able to drive tanks and infantry vehicles at high speed. But he must not forget that in a real battle he will not have to drive a tank or fire very

often. There are driver-mechanics and gunners for that. The commander's principal duty is to control his own, attached and supporting subunits and to coordinate the actions of all the forces and means so as to fulfil the assigned task in the shortest possible time and with least losses. For this he shoulders personal responsibility.

Practice testifies that high study indicators are achieved as a result of qualified and purposeful leadership of combat and political training. For this purpose concrete plans — training schedules are prepared in the units and subunits. Planning documents are drawn up with due account of the assigned task, the training level achieved by the personnel, the condition of the educational and material base and the character of natural conditions.

A well thought out and skilfully elaborated plan is the foundation of success. None the less no matter how good the plan is, its fulfilment requires first of all persistence on the part of the commander. His efforts are directed at forming favourable conditions for fruitful combat training and education, at applying advanced methods of training and at organising and ensuring concrete leadership of socialist emulation.

At present a scientific approach to the solution of the tasks set is acquiring more and more significance in the commander's activities. It presupposes not only ability to determine precisely the purpose, volume and content of measures being carried out, but also knowledge of details of the entire education process, from the training of one soldier to the achievement of teamwork of subunits and units. Naturally the commander's role in the rational use of the training time is immeasurably high. His style of work, personal example and ability to concentrate attention on the solution of key questions make it possible to organise a moral climate in the subunits contributing to the qualitative fulfilment of the tasks assigned.

QUALITY AND EFFECTIVENESS

A reliable and tested means for further raising the quality and effectiveness of combat training is persistence in putting into practice one of the basic principles: to teach what is necessary for battle. The specific character of our military district is such that the training of personnel is conducted in complex geographical and climatic

conditions. High mountains, extremely broken terrain, numerous ravines, deep snow in the mountains, frequent fogs and strong winds, sharp and sudden fluctuations of temperatures — all this makes special demands on the field training standard of commanders, staffs and troops.

For this reason subunits go regularly to mountainous regions for special tactical and firing drills. These end with tactical exercises, during which officers cultivate habits of organising and conducting battle out of contact with the main forces and on separate independent lines of advance. Staffs train to fulfil assignments in controlling the subunits, and the personnel get good practice in firing, driving combat vehicles, negotiating passes, mountain ridges, stony screens and other natural barriers. Generally speaking, everything is aimed at preparing the troops for active and resolute combat operations in any situation, any weather, at any time of the year. The principal yardstick by which subunits' training is measured is the ability to accomplish marches at high speeds, to force water obstacles in marching column, to attack and defend themselves both at daytime and at night and to use fire and manoeuvring possibilities to full capacity.

The course for maximum approximation of drills to real conditions of a combat situation proves its worth. The intensity of training has increased, firing and driving are now conducted in a more complicated situation. As a result the training process has become more intensive and its effectiveness has grown.

Intensification that helps increase the impact of every hour of drills and at the same time achieve higher final results is inseparable from integration of the objects of combat training. Further improvement of the educational and material base and the introduction of trainers into practice play a big role too. Their number has considerably risen recently. At the same time their quality has improved. Installations have appeared that make it possible not only to train different specialists, in which respect the role of the trainers was formerly limited, but to carry out larger scale tasks.

The improvement of the quality and effectiveness of the educational process depends directly on how the leaders of the exercises are able to use training methods. Those commanders of units and subunits proceed correctly who teach their subordinate officers concretely and purposefully, concentrating the entire attention on the main thing: on mastering the art of fulfilling any assignment in battle.

The more widespread form of mastering highly

effective methods and ways of training is the holding of lessons in method for instructors on the more complicated themes. In the course of such training the training leaders' aim is that the trainees should fully master the questions studied. In conclusion they do not fail to organise sharing of experience, listen to suggestions and give concrete recommendations.

Very useful are demonstration drills. Here, as a rule, the best trained subunits give the demonstration, the same education-material base is used and also the same simulation means, which later will be turned over to the platoons, companies and battalions.

It is absolutely obvious that all the work to raise officers' personnel training standards is based on profound knowledge of tactics and strategy, equipment and weaponry, regulations and combat experience, on a combination of all kinds of drills. Its purpose is to introduce advanced ways and methods of training. Responsibility for this, in the first place, lies with the superiors — organisers and leaders of commanders' training. It is their direct responsibility to make creative use of the forms and methods tested by practice and to contribute actively to the use of methods of training that lead to intensification of the educational process and make it resemble more the conditions of modern battle.

Solution of this question presupposes exactingness and strictness, strong discipline, control and verification of execution, and enhancement of responsibility for the precise fulfilment of plans, programmes and training schedules.

COMBAT READINESS

The readiness of a commander to fulfil a task assigned during battle is determined by many indicators, but the corner-stone is his field training standard. Tactical, special tactical, command and staff exercises and combat firing present the best possibilities for its development.

But the realisation of these possibilities depends on how instructive and based on knowledge of the subject the exercises are. Their concept must certainly envisage the creation of a situation impelling the officers to use creativity and initiative, make a profound and thorough assessment of the strength and possibilities of the "enemy," his strong and weak points, and to

take original and bold decisions, well justified tactically.

We pay special attention to the training of officers on the company-battalion level. The fact is that in mountains it is difficult and almost impossible to organise a continuous front. In the main, the struggle will be to capture and hold passes, dominating heights, gaps, paths and ravines in conditions of the exposure to the "enemy" fire from several levels. Therefore platoons, companies and battalions will have to act independently on different lines of advance and out of contact with the main forces. This lays additional responsibility on commanders.

During one tactical exercise a motorised infantry company under Senior Lieutenant V. Kozlov was selected to operate in a tactical airborne force with the assignment to capture the bridge across a water barrier and hold it until the arrival of the main forces. In taking such a decision, the senior commander was relying on surprise. But during the flight to the objective the company commander discovered that an "enemy" subunit was also moving towards it. If he, as planned, landed a few kilometres away from the objective to be captured, the "enemy" would be able to take up defensive positions and get ready to beat off the attacks of the motorised infantry. In this case the fulfilment of the assignment would be in jeopardy.

Thus a situation arose in which much depended on the company commander. He had to decide on the spot whether to abide strictly by the approved plan and land in the preset area or change it and land in the immediate vicinity of the "enemy" and forestall him in the capture of the objective.

Senior Lieutenant Kozlov chose the second variant. The company landed in a matter of minutes and took up defences immediately. Then came the "battle." The "enemy" tried several times to shoot down the tactical airborne party, but to no avail.

This example is instructive, for it shows how significant is self-reliance of a commander, his readiness to take responsibility for changing or specifying a decision adopted earlier. If the senior lieutenant had lost his head and delayed but for a few minutes the assignment would have remained unfulfilled. Of course, there was an element of risk here. But the commander has to also take risks in battle, taking decisions in uncertain and sometimes conflicting situations, because the enemy will try to hide his intentions and deceive the opposing side. But no matter what the officer feels he should act resolutely and take all

steps to fulfil the assignment in the best way possible.

In this connection it should be remembered: it is not the one who showed initiative but did not achieve success, that should be reprimanded, but the one who did not take the steps, dictated by the development of events, who was afraid to take responsibility upon himself and displayed passiveness. Courage, it goes without saying, is manifested not in the decision to take independent actions. What is important is that they should correspond to the demands of the situation, that they should take into account all the pros and cons and secure success with the least expenditure of strength and means. The leaders of exercises and organisers of command training should encourage their subordinates to show self-reliance and initiative, and should place them in conditions contributing to develop these qualities. The point is to create at an exercise a situation corresponding to the purpose of modern battle as much as possible, a situation that requires of the commander to show a creative spirit, to take responsible decisions and show persistence in carrying them out.

The commander's responsibility. As we understand it this notion is inseparably linked with such categories as duty, exactingness, quality and objectivity in work. The maintenance of the armed forces' high combat readiness, organisation of a precise and fruitful educational process, constant concern for military discipline and effectiveness of socialist emulation — these are the spheres of the activity, where the commander's style of work is tested and perfected, where his initiative and sense of responsibility for the assigned sector of work are developed.

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ARMED FORCES

EDUCATIONAL ROLE OF ARMED FORCES DISCUSSED

Moscow SOVIET MILITARY REVIEW in English No 2, Feb 82 pp 30-31

[Article by Col A. Kropotov, under the rubric "The Making of a Soldier":
"School of Life"]

[Text]

GUARDS MAJOR Valentin Vityazev of the Guards Putilov-Kirov Order of Lenin Air Defence Missile Regiment received a letter from Yefreitor A. Khodyrev, Soviet Army Reserve. In his letter the ex-serviceman wrote:

"Dear Valentin Yakovlevich, exactly three years ago today we left the location where we had been serving under you. Active service is receding more and more into the past. But time cannot blot out the memory of those unforgettable years or remove the imprint they have left in our hearts. All that I experienced, learnt and assimilated during my period of active service is still in me and will remain with me forever. I often thought of the question: what is the chief thing that I received from the army? I would say civic and combat maturity, above all. Of course, even at school I realised full well the holy truth: duty to the Homeland comes first and foremost. And at the unit location I came to feel this truth with every fibre of my body."

Soviet commanders and political workers frequently receive such letters. They express the cherished thoughts and feelings of young men who went through the school of maturity in the army and navy, they express profound gratitude to the officers who moulded their characters. The Armed Forces of the USSR indeed play a big role in shaping the personality of the Soviet man.

This is due to a number of interconnected factors. The main factor is the firm socio-political basis of the army and navy, which embodies the new relations which have been established in socialist society as a result of the victory of the Great October Socialist Revolution. It worked a radical change in the conception of military service. The new army is the child of the people. Its aims and tasks meet the fundamental interests of the working masses. Its might has been built up to provide a reliable defence of these interests. Service in the army is not an irksome obligation, but an honorable duty.

When a young worker, collective farmer, schoolboy or student joins its ranks he becomes a member of a closely-knit combat team. Representatives of all classes, social groups, all nations and ethnic groups in the USSR work shoulder to shoulder in this team in pursuit of their mission — defence of the Socialist Homeland. All their thoughts and efforts are concentrated on ensuring the security of the USSR and its allies, ensuring peace on earth. This noble mission largely determines the beneficial influence of military service on the personality.

The Armed Forces of the USSR constitute a specific social organism geared to fulfil the task of defending the socialist achievements and peaceful labour of the Soviet people, the sovereignty and territorial integrity of the state. This is what determines the distinct organisational structure of the army and navy, the realisation by each serviceman of his personal responsibility for the defence of the Homeland, and the strict system of subordination and absolute observance of the one-man command principle. The entire structure of army and navy life, the healthy moral atmosphere characterised by exactingness combined with respect for man, by the spirit of solidarity and mutual assistance, constitutes another factor contributing to the educational effect of military service on the personality.

Servicemen are trained and educated by officers who combine political maturity with profound professional knowledge, high general, military and technological culture. Instruction is carried out in organic unity with education in conditions closely resembling actual combat. This enables the men to master not only modern weapons and equipment, but also the methods and techniques of warfare. It helps develop will power, courage, staunchness, discipline, collectivism, and initiative.

The purposeful Party-political work covers all aspects of the men's life and activity. It is conducted with all categories of servicemen, is closely tied in with the missions they have to carry out and is a potent factor for mobilising the men for new achievements in training and duty.

The factors in army and naval service which have an educational effect on the personality include the political maturity, social activity of the men, socialist emulation, patriotic initiatives and movements, mass amateur art activity, rationalisation proposals and inventions, intensive sports activities in units and ships.

Military service plays a big role in moulding an all-round developed personality distinguished by high moral features and political maturity. This is a feature typical only of armed forces of socialist states.

The working people of all countries regard them as a bulwark of peace and social progress, as armies of liberation and friendship of peoples. Having defended the freedom and independence of their socialist state in the Great Patriotic War (1941-45), the officers and men of the Soviet Armed Forces executed their mission of liberation with

honour and dignity. They saved the peoples of our European and Asian countries from the yoke of fascism. More than a million Soviet officers and men remain forever buried in the soil of the countries they liberated. The entire heroic history of the Soviet Armed Forces is a history of selfless service of their people, of boundless fidelity to the bright ideals of communism, of patriotic and internationalist duty. Today jointly with the armed forces of the Warsaw Treaty countries they are vigilantly guarding the constructive labour of the fraternal peoples, the achievements of socialism and peace on earth.

Army and naval personnel are characterised by lofty morale, political maturity and combat proficiency. Last year Major Vladimir Nesterov was awarded the Order of the Red Star by a Decree of the Presidium of the USSR Supreme Soviet. Something went wrong with the aircraft he was flying. The major could have abandoned his plane, but to save the houses and people on the ground below the pilot steered away from the inhabited locality. In so doing he sacrificed his own life.

Several thousand servicemen have been awarded Orders and medals of the USSR for excellent fulfilment of missions assigned by the Command, for mastering new weaponry and equipment.

The entire system of communist education of servicemen, as of all other working people of the country, is built on the solid foundation of Marxism-Leninism — the scientific materialistic world outlook. The assertion of these ideas in all spheres of life in Soviet society, in the army and navy has exercised a decisive influence on the spiritual make-up of servicemen. As a determining feature of the Soviet serviceman's personality, communist ideology in turn stimulates the development of all other positive features. The qualities of the Soviet serviceman have a distinctly progressive orientation. The development and improvement of these features in the process of active service objectively contribute to all-round harmonious development of the personality and moulding of the new man.

Changes in weapons and other combat equipment and in the methods of their employment have introduced substantial corrections in the content and character of service duties. In the last few years the number of military-technical trades and professions has increased. Many of them are concerned with mechanisms and systems embodying the most advanced achievements in modern production, technology, scientific thought and design. The share of mental operations has considerably increased, the functions of control and checking have become wider. Military service and duties have acquired distinct teamwork features. Today every serviceman must possess not only high moral and political steeling, but also competence in the field of the exact sciences and technological disciplines. To carry out his military duties and functions efficiently in extremely tense and rapidly changing situations the serviceman must be well trained physically, must have great will power, and must be psychologically stable.

To secure maximum educational effect in the execution of missions all military cadres must exhibit exactingness and be irreconcilable towards any weakening or simplification in fulfilment of duty. Military service exercises a purposeful educational influence if the unit or ship constantly maintains firm order as required by service regulations, if the commanders, political workers and all other officers set an example to the other ranks in Party exactingness and principledness.

The scale of educational influence exerted by military service is determined by the fact that the country's entire male population goes through active service. The educational process begun in the family, the school and industry is continued in the Armed Forces. Men are called up for active service when they have reached the age of 18-20 years, i. e. when the personality is being moulded very intensively. That is why active service in the Armed Forces plays such a big role in the educational system of Soviet society. Continuity in education is ensured by competent application of the comprehensive approach which is the same for all elements of the national system of education. The purpose of this approach consists in the unity of ideological-political, labour and ethical education in which the specific features of the various groups of population — working people and servicemen — are taken into account.

Of course, each of these aspects of education has its own specifics. But they are all united by a common aim — that of moulding communist ideology, devotion to the Party cause, to the people, to the ideals of patriotism and internationalism. Ideology rests on sound political knowledge and on man's own experience of life, including his moral experience. The educator should equip the serviceman not only with definite knowledge, but should also teach him to discern in the reality communist ideals around him which he should adhere to and defend. Knowledge should be welded into convictions, and convictions into practical actions. Only then will adherence to ideology become an inalienable feature of the man.

Servicemen's practical activity, the execution of concrete missions assigned to a subunit, unit or ship constitute the main criterion of the effectiveness of education — ideological-political, military and ethical. All forms of military activity, such as exercises, missile launching, flights, sea and ocean cruises, alert duty and fulfilment of other missions play an important role in the formation and all-round development of the personality and simultaneously in welding military teams together. The men learn to surmount the real hardships of marches and combat life. They have to live up to the moral, political and psychological standards instilled in them during the preceding process of instruction and education.

A typical feature of present-day army and naval reality is constant dynamism and eventfulness. In this context well thought out planning of the educational process, including long-term planning, acquires special importance. The aim

is to determine clearly the purpose, substantiate calculations of manpower and equipment needed, choose optimal ways and methods for achieving the results desired.

Thus, service in the Armed Forces of the USSR marks an important stage in forming and developing the personality of Soviet man — the builder and defender of the new society. The army trains the man, makes them morally stable and physically fit, instills in them courage, firm communist convictions and realization of their civic duty.

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ARMED FORCES

SOCIAL SECURITY BENEFITS FOR SERVICEMEN DISCUSSED

Moscow SOVIET MILITARY REVIEW in English No 2, Feb 82 pp 36-37

[Article by V. Borisov: "Social Security for Servicemen"]

[Text]

While building up the USSR's economic and defence potential, the Communist Party and the Soviet Government take constant care of war veterans and army and navy servicemen. At all stages in the development of the Armed Forces the Communist Party and the Soviet Government have paid special attention to social security for servicemen.

THE SOVIET state social security system was set up in the first year after the Great October Socialist Revolution. Its fundamental principles are:

It is **general**, i. e. it covers all working people;

It is **universal**, i. e. it extends to all necessary cases (sickness, old age, disability, loss of the breadwinner, etc.);

It is **free**, i. e. it is provided at the expense of state and public funds, the working people themselves making no contribution to it;

It is **democratic**, i. e. the social security system is managed with the active participation of the public and trade unions and under their control.

The Soviet state social security system includes material provision for people who are unable to work on account of disability or old age, grants and allowances to temporarily disabled people, issue of various benefits and subsidies. The social security system maintains homes for invalids and aged people, provides artificial limbs, teeth, etc. and makes available to the disabled accommodation at sanatoria and health resorts.

The social security system is paid for out of what is known as the public consumption fund, nearly 40 per cent of this fund being spent on it.

Today there are nearly 50 million pensioners in the USSR. The general retirement age is 60 for men and 55 for women. And for many categories of workers the retirement age is much lower. For instance, men working in the mining, chemical engineering and a few other industries can retire at the age of 55 or even 50 and women — at 50 or 45. Working war invalids are entitled to old age pensions five years before the general retirement age.

Under the Constitution of the USSR Soviet servicemen and their families, like all Soviet citizens, enjoy full rights to pensions. These rights are implemented taking into account the military rank and post held by the serviceman concerned.

Pensions for men on active service and their families are allotted taking into account the specific conditions of military service. Men in active service enjoy the right to a disability pension, if they are classed as invalids while in service or before three months have expired after honourable discharge from the forces. In the event of loss of the breadwinner his dependents who are unable to work receive pensions, if the breadwinner was killed in action or reported missing. Pensions are allotted by special commissions set up by the executive committees of Soviets of People's Deputies.

Pensions for officers, praporshchiks and mitchmans, extended service personnel are granted on the basis of regulations established by the USSR Council of Ministers. The size of the pension is also fixed by the USSR Council of Ministers. Servicemen's pensions include longevity or disability pensions and pensions for servicemen's families on account of the loss of the breadwinner.

A longevity pension is granted to a serviceman after 25 years of service. Officers remain in active service till they reach the following ages: junior lieutenants, lieutenants, senior lieutenants and captains (and officers of equivalent ranks) till they are 40; majors, lieutenant-colonels, captains 3rd and 2nd rank till they are 45, colonels and captains 1st rank till they are 50, generals and admirals — till they are 55-60.

An officer can be retired from active service before the time because of ill health or reduction of the armed forces. In this case, if an officer is 40 years old or more and has been in active service for more than 20 years, he will be entitled to a longevity pension. If an officer is retired from a flying post or from submarines, and also in some other cases, he will receive a longevity pension regardless of his age.

The right to a disability pension is enjoyed by officers, praporshchiks, mitchmans and extended service personnel who have been recognised as invalids upon discharge from military service. The size of the pension depends on the group and cause of disablement, the pay he was receiving (from which the pension is calculated), and the number of years he has been in service.

The Soviet Union takes special care of the Great Patriotic War (1941-45) veterans. In this respect important measures were taken during the Tenth Five-Year-Plan period. In particular, they enjoy the following privileges:

- a 50 per cent discount on railway fares (return) once a year; in areas without railways this rule applies to inland waterway, air or inter-urban bus fares;

- the right to interest-free loans for individual house-building;

- the right to take annual leave at any time convenient to the veteran and to get additional leave up to two weeks a year;

- the right to avail themselves of the services of outpatient clinics at their place of work upon retirement;

- the right to priority (at their place of work) in provision of accommodation at sanatoria, disease prevention centres and rest homes.

In addition to these privileges invalids of the Great Patriotic War enjoy:

- the right to free travel on suburban railways, inland waterways and buses;

- the right to a 50 per cent discount on fuel, if invalids of the 1st and 2nd groups live in a house with no central heating.

Invalids of the Great Patriotic War (1st and 2nd groups) pay no agricultural tax, tax on buildings or land rent.

The Soviet state has not only legislatively consolidated the right of servicemen to pensions and ensured it materially. Taking into account the specifics of military service and highly assessing its importance, the state has established additional privileges for servicemen going onto the reserve or retirement lists and also for members of their families. For instance, they enjoy priority in obtaining employment, provision of housing and medical aid.

Privileges in the sphere of labour. Soviet legislation makes it binding on the Party and local government bodies, the administration of enterprises, organisations and collective farms to provide ex-servicemen with employment taking into account their speciality and experience of work. Employment must be made available within one month after application. Military service is includ-

ed in the uninterrupted period of work which entitles workers to increments:

Privileges in the sphere of housing. The Soviet Union pays special attention to providing servicemen with well-appointed housing. In concrete terms this right is expressed in priority granting of housing and building of individual houses.

Privileges in respect of taxes. Ex-servicemen and their families are wholly or partly exempt from certain taxes. Thus, invalids of the Great Patriotic War of the 3rd group are exempt from income tax on wages. Veterans of the Civil War, the Great Patriotic War and other operations in armed defence of the Homeland pay only 50 per cent of the established income tax.

Privileges in the sphere of public health services. War veterans and servicemen in the reserve or on the retired list are entitled to free medical aid at clinics and hospitals of the military establishment. They also enjoy priority in obtaining accommodation at sanatoria.

Having made improvement of living standards the pivot of their practical policy, the CPSU and the Soviet Government take special care of those who have guarded the peaceful labour of the people. As Comrade L. I. Brezhnev put it, attention and assistance for people in their daily cares has become a law of life of the Soviet people.

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URBAN WARFARE IN WW II DISCUSSED

Moscow SOVIET MILITARY REVIEW in English No 2, Feb 82 pp 41-43

[Article by Col G. Kudryavtsev: "Town Fighting"]

[Text]

DEPENDING on the concrete situation various methods of capturing towns and cities were used. For example, if an inhabited locality was defended by limited forces and there were no large enemy reserves, the Soviet forces tried to capture it on the move. If the enemy had previously organised defences and had large forces at his disposal our troops were forced to take the town by storm after an all-round preparation.

The liberation of Czestochowa, a large industrial town in Poland, by the 13th Guards Infantry Division in 1945 (see Sketch No. 1), is an example of successful actions to capture a town on the move.

On January 16, 1945 the division was rapidly pressing home the attack. The enemy, routed in previous battles, was withdrawing to Czestochowa trying to assume defensive positions on a previously organised defence line on the western bank of the Warta. His battle formations were scattered.

After assessing the situation the Commander of the 32nd Guards Infantry Corps assigned the following mission to the division: to break into Czestochowa on top of the enemy, to capture it and hold it till the arrival of the corps' main forces.

The division commander decided

to capture the town using the forces of the advanced detachment consisting of the 42nd Guards Infantry Regiment reinforced with a tank destroyer, a self-propelled artillery and a tank regiment and two artillery battalions. It was decided that infantry would attack mounted on tanks and self-propelled guns. The powerful composition of the advanced detachment permitted it to act independently in the most complicated battle conditions. The regimental commander, having studied the reconnaissance data determined on the map together with the officers of his staff the direction of the main blow, and the possibility of using artillery and tanks. Questions of cooperation, troop control signals and methods of maintaining communication when fighting in the town were agreed on. The command brought to the notice of every soldier, sergeant and officer the missions for subunits, methods of action and cooperation.

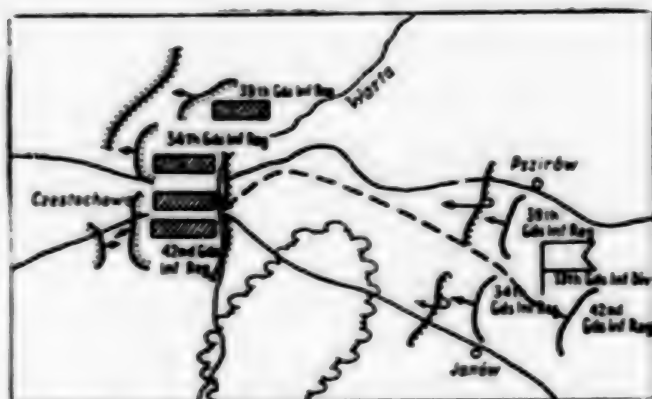
At 0800 hrs on January 17, the regiment started to fulfil the combat mission. An advance party comprising a reinforced infantry company moved in front of the main forces. It sent out a reconnaissance patrol. Making use of gaps and passages in the enemy battle formations the advanced detachment cut into the rear of the withdrawing enemy subunits

and by 1400 hrs reached Czestochowa.

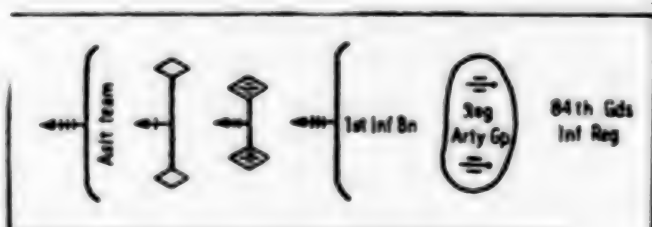
The enemy offered particularly stubborn resistance on the north-eastern outskirts of the town, counterattacking with up to an infantry battalion with tanks, supported by combat planes. Having repulsed the counterattack the Soviet troops rushed into the town and began to advance towards its western outskirts. The enemy brought up reserves and launched repeated counterattacks but without any success. By 2000 hrs, after the arrival of the division's main forces Czestochowa was completely cleared of the enemy.

The quick capture of the town was the result of rapid and coordinated actions by all forces of the advanced detachment. Having forestalled the enemy in capturing the defensive lines, the Soviet units did not allow him to pin down the main forces of the division or to lower the speed of advance.

Organising and carrying out the storming of a town are a more complicated matter than capturing it on the move. Combat experience shows that a battle in a town was split up into a number of engagements for capturing important areas, blocks, separate buildings and industrial structures, and this determined the battle



Sketch No. 1



Sketch No. 2

formations of units and subunits.

The battle formation of infantry divisions usually consisted of two echelons. As a rule, reinforced assault detachments and teams were formed in battle formations of units and subunits. The Assault Detachment of the 84th Guards Infantry Regiment of the 33rd Guards Infantry Division (see Sketch No. 2), for example, when storming Koenigsberg in April 1945, consisted of an infantry battalion reinforced with four tanks, eight self-propelled guns, a 120-mm mortar battery, a 122-mm howitzer platoon, a 76-mm gun platoon, a platoon of engineers, a chemical section and a section of portable flame throwers.

From an infantry platoon to an infantry company reinforced with one or two heavy machine-gun sections, one or two sections of portable flame throwers, one or two artillery platoons, a tank platoon or a platoon of self-propelled guns were detailed as assault teams.

The battles of the 235th Infantry Division for Koenigsberg in April, 1945 provide one out of numerous examples of storming a large city. Paying particular attention to the city's defence, the Nazi Command had organised strong defences in advance. On the forward edge, between forts and in the depth, trenches were dug, switch positions, permanent emplacements, log pillboxes and antitank ditches were organised and mine fields laid. The city was adapted to perimeter defence. Barricades were built on streets and cross-roads and the approaches to them were covered with hedgehogs. Buildings were turned into strong points connected by communication trenches. Powerful installations — fort's fortifications were also a part of the defensive system. At their approaches wire entanglements and mine fields were installed. The capture of such fortifications demanded of the Soviet forces good organisation, skilled actions, courage and valour of the fighting men.

Proceeding from the plan of the city, character of the defences and the enemy strength, the division was assigned the mission which was less in depth than in ordinary conditions: the depth of the initial mission was 0.8 km, of the next mission — 2.2 km, and of a day's mission — 4 km.

The division commander decided to assume two-echelon battle formation and to make up regimental and divisional artillery groups. In each infantry regiment of the first echelon a reinforced assault detachment was organised for blocking and destroying the permanent defence installations. The division commander jointly with the regimental commanders carried out on-the-spot reconnaissance and worked out cooperation on the ground. Single reference points were indicated and signals of cooperation between infantry, tanks, self-propelled guns, artillery and aviation were established. Infantry and tanks, for example, designated their positions

for the air force with a series of white flares. Besides, tanks had an identification mark — a white stripe on their hull.

On a special training field organised like the enemy defences exercises were carried out with the assault detachments and teams. The troops learnt how to block and destroy enemy strong points. Particular attention was paid during the exercises to precise cooperation of all elements of the assault detachments and teams. Exercises with the officers were organised on the terrain using the city plan and on a sand box.

Prior to the offensive purposeful Party-political work was carried out in all units. The commanders, political workers, and Party activists brought to the notice of the divisions' personnel "Instructions on Storming the City of Königsberg," worked out by the higher headquarters. It dealt at length with characteristics of the enemy defences, description of streets and buildings and also instructions on methods of fighting in a city. Leaflets were published giving practical recommendations to individual soldiers, teams or crews on how to act in a town. Officers and men with good experience of battle in a town had talks with the rest of the fighting men and gave them practical advice.

On April 6, after a three-hour artillery bombardment the assault detachments launched an attack supported by a double fire barrage. In

half an hour they blocked one of the forts, broke through the enemy defences and reached the outskirts of the city. A fierce battle ensued. The accompanying artillery acted very effectively. By direct fire it struck at embrasures and loopholes in the walls of houses, at windows and garrets killing men and destroying fire weapons, buildings and barricades. Mortars attacked the enemy in shelters and yards, and inside blocks. Tanks and self-propelled guns moved along both sides of the streets in small groups preparing the way for the infantry. The fighting vehicles moving along on the right fired at buildings on the left and vice versa.

The infantry subunits enveloped buildings from two or three sides, hurled grenades at them and rushed in on the ground floor. Success of fighting inside the building depended on the speed, initiative and daring actions of each soldier. There was fighting for each room, each storey. Where it was impossible to penetrate a house the sappers dragged up explosives under cover of submachine guns and made breaches in walls.

Having captured one objective, assault detachments and teams pressed home the attack without interruption in the depth while specially detailed subunits checked the captured buildings and carried out demining.

In fighting in the town actions of flame thrower subunits were of great importance. Through loopholes,

windows and breaches they "burnt down" the enemy from basements and buildings. Thus, the assault detachment of the 801st Infantry Regiment fighting to capture a brickworks, was stopped by heavy enemy fire. The detachment commander, having assessed the situation quickly brought up flame throwers. Under cover of artillery and tank fire, making use of hidden approaches, the soldiers placed six flame throwers in window openings of the building facing the works and fired a volley. This stunned the enemy. His fire system was disrupted and a considerable portion of his fire weapons and manpower destroyed. The assault detachment quickly captured the brickworks.

Thus, combat practice shows that town fighting is one of the complicated types of action and demands thorough preparation. The speed of advance drops sharply, the depth of missions and width of zones of advance narrow and the depth of battle formations increases.

During fighting in a town the attackers' front is broken up considerably, and this hampers use of artillery and aviation for direct support of the assault detachments and teams. Frequently there arises a threat of enemy surprise counterattacks from shelters and underground structures. Reliable cover of flanks and rear of the attacking forces is therefore of paramount importance. Town fighting requires of the commander and his staff great skill in troop control.

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ARMED FORCES

PSYCHOLOGICAL-PHYSIOLOGICAL TRAINING DISCUSSED

Moscow SOVIET MILITARY REVIEW in English No 2, Feb 82 pp 63-64

[Article by Col K. Petrov, Cand. Sc. (Psychology) and Lt Col I. Barchukov:
"Psychological Steeling"]

[Text]

PHYSICAL culture is practised in the army to develop officers' and men's strength and endurance, agility, prompt actions and military-applied skills. Moreover, it is intended to help the servicemen adapt themselves to the situation, gain high combat skill and develop the ability to carry out their combat duties unfailingly and effectively.

During joint tactical exercises the servicemen of the friendly armies of the Warsaw Treaty countries invariably show a high training standard and ability to withstand extreme physical and moral strain practically without decreasing their fighting efficiency. This is due in no small degree to the enhanced role physical training is playing now in cultivation of high combat, moral and psychological qualities in the men. Regular sport steels a man and develops in him qualities such as resolve and courage, staunchness and persistence, resourcefulness, composure and self-control.

To improve physical training (PT) methods, representatives of the friendly armies share their experience in contacts with the Friendly Armies' Sports Committee (FASC). They regularly attend scientific conferences in method, consult each other and exchange books on method and training films. At conferences in method considerable importance is attached to the role of physical training and sport in enhancing the moral and psychological steeling of servicemen and army sportsmen. Scientists, coaches and PT specialists attending these conferences read papers to acquaint the audience with vital problems which they illustrate with demonstration exercises. At one conference Soviet method specialists acquainted those present with the procedure for psychological steeling of paratroopers using vertical swings, gyro wheels, centrifuges, obstacle courses and also by simulating combat situations on the paratroopers' training ground with the use of smoke screens and battle noises produced by explosions, shooting, roar of engines, etc.

After demonstration exercises carried out by the Soviet paratroopers Colonel M. D. Selo (Mexico) said:

"I am delighted with the Soviet servicemen's high training standard and I dream of my soldiers reaching such a high level in physical training."

Among the participants in the demonstration exercises were representatives of the friendly armies from Cuba, Bulgaria, Czechoslovakia, Poland, Hungary and other countries, all FASC members.

The officers and men learn courage and gallantry by the tenor of their army life as reflected in their daily routine, in which difficulties abound. For instance, when performing his first parachute jump a paratrooper has to exert great effort of will to overcome fear. Long cross-country races help the men develop persistence and self-confidence. Training on the obstacle course and negotiating wrecked buildings enveloped in flames key up the men's endurance and strength and at the same time train them in resolve and readiness to fulfil their mission.

Unprecedented heroism, gallantry, poise, combat skill and staunchness were shown by the servicemen of the People's Army of the Socialist Republic of Vietnam in their fight against the American aggressors. Despite the hardships and fierce fighting the Vietnamese army commanders never failed to pay due attention to the men's physical and psychological training organising it during lulls in battle. The Vietnamese officers and men endured severe ordeals during long marches through the jungle or in swampy or mountainous country, laying hasty roads for their vehicles, repulsing massed air raids, surmounting various obstacles including burning buildings or when engaging the enemy on the march.

The long drawn out war of the Vietnamese people and their heroic army showed that only a man who has firm ideological convictions and is also steeled psychologically can cope with all the hardships of the battlefield, remain cool and resolute and, in the final account, win the duel with a perfidious enemy.

To develop the men's psychological stability, the friendly armies practise training using special instruments and simulators. Their activeness is boosted by training combined with outdoor games and competitions.

Today warring sides can find themselves in an extremely varied and complicated situation. The men must therefore train to adapt themselves to different conditions in order to develop psychological stability. For instance, servicemen are taught how to surmount obstacles located high above ground level, to dive, to cross water barriers, to negotiate zones in flames and wood slashings and to practise hand-to-hand fighting. The servicemen take part in forced marches to distances of 6 km, 10 km and 20 km and also in militarised and military-applied competitions. There is thus every reason to believe that in similar situations in real battle the men won't be at a loss and will be able to avoid excessive nervous and psychological strain.

To produce the picture of a real battle, training in peacetime is usually combined with practice firing, being "run-over" by tanks, simulated shell bursts and bullet whistle and

with live grenade throwing. Overcoming the severe physical strain imposed by such training the men develop courage and resolve, will-power, resourcefulness, ready response and quick wits.

Naturally, psychological training must not be considered in isolation from other kinds of combat training. To form high moral and combat qualities is a complicated process with specifics of its own as regards content, planning and methodology. In the friendly armies this process is ensured by the concerted actions of commanders, political workers and PT specialists.

Life shows that many outstanding sportsmen went in for sport when serving in the Soviet Armed Forces and in the armies of the other socialist countries. Among them are national team members, champions and prize winners of the Friendly Armies', European, world and Olympic Games championships.

FASC is confronted with the vital problem of increasing the effectiveness of Party-educational work with high-class sportsmen. This is because the friendly armies' sportsmen enjoy great prestige in many countries and more often than not they are trusted to represent not only their armies but their countries as well in some major competitions. Hence the training procedure must be elaborated so as to develop in the sportsmen important qualities such as a sense of duty and responsibility for the mission assigned, disciplinedness, will to win, selflessness, ability to cope with any difficulties.

At present new and still higher demands are made on sportsmen. They must further develop their consciousness, intellect, social and moral qualities. Greater than ever today in the training system is the role of sportsman's psychological stability, ability to fight sports battles and win, and to accomplish feats of valour on the sports ring in the name of his team, club, army or his Motherland.

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AIR FORCES

AIR RECONNAISSANCE DESCRIBED

Moscow SOVIET MILITARY REVIEW in English No 2, Feb 82 pp 18-19

[Article by Col L. Stasenok: "Air Reconnaissance"]

[Text]

RECONNAISSANCE is one of the most important types of combat security of forces. The history of wars provides numerous examples testifying to its great significance. Even strong and well-equipped armies could not make full use of their capabilities, expended their men and materiel to no effect, got into critical situations and suffered defeat if they had no reliable information on the enemy.

With the advent of aviation, air reconnaissance becomes an essential part of military reconnaissance. Its advantages are undeniable. Speed, height, provision with special instruments and relatively low vulnerability to enemy fire make it possible to reconnoitre the areas where the enemy is located, disclose his groupings and the most important elements of his battle order, detect the location of his control agencies and all this in a short time thus creating favourable conditions for achieving success.

The Great Patriotic War of the Soviet people against nazi Germany affords tangible corroboration of this. The success of many battles fought in that war was determined by information obtained by means of air reconnaissance. In particular, at the final stage of the Bagration operation in Byelorussia the aviation revealed the preparation of a large enemy grouping for breaking out of the encirclement. The result was that the timely blows delivered by the Soviet forces thwarted the enemy's efforts and ensured his defeat.

To ensure secrecy of its own operations during the war the Soviet Command attached great significance to measures aimed at reducing the activity of enemy reconnaissance. For example, on

the eve of the Kursk battle the airmen of a single fighter regiment shot down 23 nazi reconnaissance planes from May 10 to July 5, 1943.

The qualitative changes which have occurred in aviation due to the scientific and technological revolution have greatly enhanced the capabilities of air reconnaissance. Modern reconnaissance planes are equipped with the latest types of reconnaissance instruments and complexes. What is more, this equipment is being constantly improved. As regards tactical flying characteristics, reconnaissance planes are not inferior to fighter aircraft. These and other qualities of air scouts increase their ability to supply forces with complete and reliable data on the enemy installations and intentions both during preparation for and in the actual course of battle.

Successful accomplishment of the missions assigned depends to a great extent on the planning of sorties of reconnaissance planes. The zone of operations may contain hundreds of enemy installations interesting the Command. Reconnaissance aviation alone obviously cannot disclose all of them and at the same time keep watch on their activities. It is therefore of paramount importance to define the main targets, whose destruction may considerably influence the course and outcome of battle. These targets include enemy nuclear attack weapons, main groupings, control posts and reserves, primarily in the sector of the main attack. During planning of reconnaissance flights frequency of observation must be determined for each target. Other, so called secondary objects, are usually revealed in passing, i. e. after reconnaissance of the main targets.

Timely assignment of missions to crews of reconnaissance planes and reconnaissance subunits is also of no small importance for successful accomplishment of the missions assigned. At present a great variety of technical facilities are used for this purpose. A further point to be noted is that bringing missions in good time to the notice of those who are to carry them out directly affects the quality of crews' preparation for flights and in the final analysis the results of air reconnaissance.

The time allotted for crews to prepare should be distributed so as to ensure a thorough study of the conditions in which the mission will be accomplished and provision for different variants of combat actions. The experience of the Great Patriotic War shows that all important targets were usually carefully camouflaged and covered by antiaircraft weapons. In present conditions the potential enemy will most probably display

still greater inventiveness in this field. In modern combat one cannot therefore count on easy victory.

Antiaircraft means can be subdivided into active and passive. Active means include supersonic interceptor fighters, various surface-to-air missile and antiaircraft artillery systems which can engage targets at different altitudes — from extremely low to stratospheric. These weapons are supplemented by passive means: various radio-electronic detection systems and automatic control complexes.

When specifying the mission each crew carefully studies the antiaircraft means detected in the direction of flight, especially in the search area, analysing in the first place all the capabilities of these weapons according to their type and location. Then they select the flight route and determine the flight profile and regime.

Nowadays pilots preparing for flight resort more and more to modelling specific missions. By rehearsing the flight, testing and choosing the appropriate manoeuvre they find the most rational methods for overcoming the enemy air defence system and fulfilling reconnaissance missions.

Prior to a sortie pilots are informed of the latest changes in the situation. Taking them into account they make the final corrections to their plans. For training purposes commanders always ensure that every reconnaissance sortie has an instructive tactical background. This trains crews to display self-reliance in action and a creative approach to solving different training problems.

Air reconnaissance missions are flown as a rule by pairs or single planes, at low or extremely low altitudes. Therefore pilots must rely only upon themselves in respect of navigation and target search. Hence the importance for them always to be able to orient themselves without difficulty and to know their position.

When preparing for a mission reconnaissance crews should always bear in mind the necessity for carefully camouflaging their actions, otherwise the enemy will immediately take all necessary steps to hinder or mislead them. To avoid this reconnaissance pilots must possess a thorough knowledge of the combat capabilities and weak and strong points of enemy antiaircraft weapons, and be able always to perform various manoeuvres without a hitch and orient themselves easily in different flight conditions and situations. This is the pledge of success.

The whole process of everyday training and flights contributes to perfecting the combat capabilities of reconnaissance crews. Accordingly, when training pilots in conditions close to those

they will encounter in actual fighting, commanders should always remember that in a concrete situation all these qualities may be of equal importance. At the same time every airman should clearly understand that any negligence in preparing for a reconnaissance flight, the slightest inaccuracy in manoeuvring and also stereotype actions may lead to failure and non-accomplishment of the mission. That is why the pilots should prepare carefully for every reconnaissance sortie, irrespective of its complexity and recurrence of flight elements, taking into account the concrete tactical situation and flying conditions.

The crucial element in reconnaissance is target search in the assigned area. In choosing the appropriate manoeuvre during ground preparation the pilots take into account the importance of the target, its mobility and probable actions, and proceeding from this they determine the clues which may help to identify the target, the extent of its antiaircraft defence and whether they can neutralise that defence or must ask for fighter cover. Cooperation with support forces should also be organised.

In training flights the pilots polish their skill mainly over tactical practice ranges. There the crews of reconnaissance aircraft train to search for different targets, determine the character of their activities according to the concrete tactical situation, plot coordinates, transmit information to control centres, etc.

The efficacy of air reconnaissance depends to a great extent on the subsequent work of gathering and processing the results of reconnaissance and passing on the intelligence data to the command concerned. For this purpose there are special groups provided with various equipment. If specialists of these groups possess a high professional skill and have modern equipment at their disposal, the intelligence data will be supplied to the headquarters concerned in good time and the data will be deciphered, analysed and generalised with a high degree of accuracy.

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AIR FORCES

OPERATION OF AN-12 REAR GUN TURRET DESCRIBED

Moscow SOVIET MILITARY REVIEW in English No 2, Feb 82 pp 22-23

[Article by Col K. Konstantinov, under the rubric "Specialist's Tips:" "Operating the AN-12 Rear Turret"]

[Text]

POST-FLIGHT examination and checking of the gun armament begins with visual inspection. When unloading guns which have been used for firing, special attention must be paid to strict observance of precautionary measures.

Before beginning inspection of the rear turret, switch off the supply source and the FIRE and UNIT interlocking switches. Make sure that there is nobody in front of the gun barrels, that there are no cartridges in the hose running to the gun, in the belt guide and the chamber, and that the firing pin is released.

If the ammunition allowance has not been completely expended or there has been a stoppage in firing, first of all unload the guns. To begin with, determine the cause of stoppage and then extract the cartridge or the case using the special device for this purpose. If this is impracticable, dismount the gun together with the device from the turret. Having eliminated the fault, clean and lubricate the armament.

When inspecting the gun, make sure that there are no cracks or other mechanical damages in the assemblies and parts, check separate units for safetying and examine the state of corrosion-resistant coating, paying special attention to the parts made of magnesium alloy.

Carefully remove the old lubricant with a cleaning cloth moistened in kerosene, paying special attention to the internal surfaces of cartridge case outlets. Usually this operation is performed after every flight but not less than twice a month if there are no flights. In doing this see to it that electric bundled conductors are free from kerosene.

Be sure to check the fastening of the camera gun and other assemblies of the sighting station for reliability and see that there is no mechanical damage to the serial gun-fire automatic control devices, the speed and density transducers, and the charge temperature sensor.

Before mounting the guns on the turret, check them for easy sliding in the counter recoil mechanism, and the

coaxiality of the joint valve piston with the air cylinder connector adapter. Misalignment of the joint valve and the adapter should not exceed 1 mm.

For belt loading the links are prepared by means of a special machine as follows: the cartridges are inserted manually into the links as far as they will go by pressing the cartridge case bottom with the palm of the hand, after which they are passed through the machine. With a sharp movement of the machine handle the cartridges are rammed into the link until the lock engages with the cartridge rim. The last link is left vacant because after the first section has been loaded the next belt section will be connected to it. The loaded belt is placed in the ammunition box.

In filling and straightening the belt see to it that cartridge fuses and primers are not subject to impacts. In a properly loaded belt the link lock is in contact with the case. The belt should bend easily. Dents on the cartridges and unbent claws on the links are not allowed.

As a rule, after links have been used three times they are replaced by new ones. The first and last links are used only once.

To stow the ammunition allowance two men are needed: one at the ammunition box and the other below the fuselage near the loading port. The belt is packed beginning with the rear section of the box. The upper part of the box, to a depth of at least 20mm, should be free of the belt.

The belt is fed to the gun-feed block by cutting in the button of the electric loading mechanisms. The movement is guided by means of a special hook.

After that check the operation of the energised sighting station, the turret remote control system (at first with the computer switched off and then switched on), the firing and reloading circuits, electric loading mechanisms and the computer with the sighting station fixed.

Harmonisation of the gun armament consists in geometrical alignment of the sighting station sight line with the axes of the gun barrel bores, and subsequent synchronisation of the movement remote control. By "geometrical alignment" is meant plane levelling, checking the vertical axes of the sighting station and the turret for correct setting, checking the training target for correct installation and pointing the sight line of the sighting station and the axes of the gun barrel bores at target design points.

Synchronisation of the gun movement remote control system consists in setting the transmitting and receiving selsyns at the zero position and then checking the selsyn output signals.

Harmonisation is performed after replacing both guns, selsyns, sighting station, cabin glazing, turret, when carrying out scheduled maintenance, etc. For this purpose special instruments, accessories and tools are prepared. In bad weather plane levelling and harmonisation may be carried out in a hanger and in calm weather on level concrete. The empty plane (without cargo, crew, bomb load, etc.) is mounted on hydraulic jacks. After levelling, the projection of the plane axis is marked on the ground or concrete;

its correctness is checked every two hours.

The training target is positioned behind the plane on the extension of its longitudinal axis at a distance of 50 m from the vertical axis of the turret and the correctness of its installation in the horizontal and vertical planes is checked. If the size of the ground does not permit this, harmonisation can be carried out at a distance of 25 m. The target plane should be perpendicular to the aircraft's longitudinal axis. Then the guns are adjusted for barrel parallelism, the sighting station is checked for correct aiming at the target and the camera gun is harmonised.

Synchronisation of the system may begin only after completion of all the above-mentioned operations. It includes adjustment of sighting station selsyns and turret selsyns, and check of the results of harmonisation. The results are entered on a record card.

To make sure that harmonisation of the guns has been done correctly, before the flight it is necessary to check the pointing of the guns and the sight using a boresight fixture, and to determine the value of noncoincidence of the boresight fixture cross-hairs with the target design point and of the middle (zero) luminous point of the sight with the target reticle. After aerial proof firing, determine, using the same boresight fixture, the value of noncoincidence of gun and sight pointing with their design positions on the target. Then compare the results of noncoincidence of gun and sight pointing with their design positions on the target obtained before aerial proof firing. Harmonisation of the guns and the turret of the stern firing station is considered stable if the difference in the results of checking the harmonisation prior to and after aerial proof firing does not exceed 12 angular minutes (2.5 bore sight fixture divisions).

To reveal the state and readiness of the armament for flight, pre-flight checks of the rear turret, sighting station and operation of the live system are carried out. Before loading, wipe the gun barrels dry, direct them to a safe zone and raise.

Then check the range and base knobs for smooth and easy rotation, the collimating sight system, the instrument lamp filament switch and the collimator grid dimmer rheostat. The range indicator displacement should be within 200-2,000 m.

The air gunner must always remember that before landing and take off the guns should be in the stowed position. They will automatically occupy this position as soon as the gunner releases the control button on the sighting station. Automatic reloading devices prevent misfires and other stoppages in firing. They provide two successive reloads and are then disconnected. Firing stops automatically as soon as the guns press the limit switch and during reloading.

After take-off, cut in the auxiliary circuit toggle-switch and load the guns by depressing the RELOAD buttons. The readiness of the guns for firing is checked against counter signal lamps. Then switch on the computer. Having

entered the zone of most probable meeting with the enemy, turn on the A.C., UNIT and COMPUTER switches. Set the ATTACK-DIRECT switch to the position corresponding in the concrete situation (if the enemy is on the pursuit curve the switch is placed in the ATTACK position, if on a parallel course or approaching from the rear — in the DIRECT position). The FIRE button is cut in before opening fire. The described order of operations is mandatory.

In flight it is necessary to check how the guns follow the sighting station. To do this, depress the sighting station control button and, turning the station upward and downward, then to left and to right, observe the guns. Then check the fire control.

Before landing (after setting the turret in the stowed position), turn off all the switches and lock the sighting station.

Proper handling and timely scheduled maintenance will ensure constant combat readiness of the aircraft's gun armament.

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GROUND FORCES

SECURITY GUARD OPERATIONS DURING MARCH DISCUSSED

Moscow SOVIET MILITARY REVIEW in English No 2, Feb 82 pp 16-17

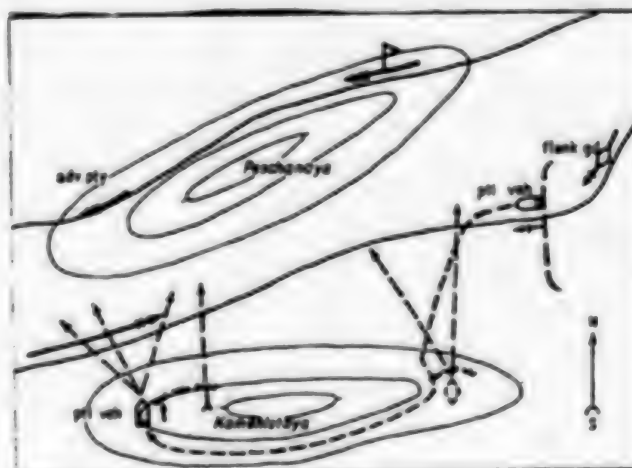
[Article by Maj S. Ivanisov, under the rubric: "Combat Training": "Acting in Flank Guard"]

[Text]

During a march a security guard is organised and assigned the following mission: not to allow the enemy reconnaissance to penetrate to the guarded troops, to secure them against a surprise attack and to create advantageous conditions for deployment and commitment to battle. This article by Major S. Ivanisov deals with actions of a flank guard at tactical exercises.

LIEUTENANT Lavrikov, a platoon commander, appointed flank guard commander, when ascertaining a mission and studying the route of the movement on the map already concluded that the most probable place of encounter with the "enemy" was the area of hills: Kamenistaya-Peschanaya. There the complicated mountain relief made it possible to approach the guarded column undetected and to attack it unexpectedly. As the flank guard had the mission not to allow this the platoon commander tried beforehand to plan how he would act in the event of meeting the "enemy."

First of all he made sure that every soldier and sergeant understood the mission and knew how and on what terrain he was to operate. The officer thoroughly studied with his subordinates the probable area of engagement with the "enemy." And only when he was sure that each section leader and particularly Sergeant Sirmis, whose vehicle was detailed as patrol, and



Flank guard commander's decision for battle

also Sergeant Kim, commander of the attached tank, completely understood the assigned missions did Lieutenant Lavrikov report readiness to advance.

When the flank guard reached a foot of Kamenistaya Hill, the patrol vehicle, on the corresponding signal, carried out a turning movement.

Lieutenant Lavrikov personally decided to inspect the terrain. Only after the battle did he say that a kind of presentiment had induced him to do so. But this was apparently rather a matter of the commander's foresight. For on the basis of reconnaissance data, analysis of the terrain and the conclusions from the estimation of the situation he assumed in advance that this was where the engagement might take place. And his conclusions proved to be right.

The "enemy," a reinforced company strong, advanced along the depression dividing Kamenistaya and Peschanaya hills. Lavrikov understood immediately that the forces were obviously unequal. It followed that he should report on the situation to the commander who had sent out the flank guard, and then, having occupied an advantageous line, hold it till the arrival of other subunits. Kamenistaya Hill, from which the lieutenant carried out observation, might well serve as that line. From there the "enemy" column was spread before his eyes.

A perfectly justified decision for the fulfilment of the assigned mission might be: all fighting vehicles of the platoon and the attached tank to take up fire positions on the slopes of Kamenistaya Hill facing the depression and suddenly to open fire at the "enemy" column. As a result in the very first minutes of battle the platoon could inflict considerable losses on the opposing side and thus create favourable conditions for free movement of the guarded column. These were the advantages of the situation. But there were drawbacks too.

Lieutenant Lavrikov realised that the enemy strength and that of his flank guard were obviously unequal. Besides, the "enemy" was moving in column formation. Making his combat vehicles perform a 90 degree turn and thus redeploying his march formation into a battle one, he could immediately concentrate fire on the

platoon's positions. Given the correlation of men and equipment such a development of events in no way made it possible to delay the "enemy" for long, to force him to abandon active combat operations. Besides the commander of the "enemy" subunit would soon realise that he was confronted only by an infantry platoon reinforced with a tank. That would allow him not to commit his entire subunit to action but to pin down the flank guard with part of his force and continue to carry out the assigned mission. This meant that the initiative would pass into his hands, and, consequently, he would have a greater chance of success.

Proceeding from these considerations Lieutenant Lavrikov decided to take vigorous action so as to prevent an "enemy" breakthrough to the guarded column.

It should be mentioned here that active operations in defence, as a rule, turn out to be highly profitable and in the majority of cases make it possible to dictate one's will to the enemy. However, one should remember that activity by itself does not bring success. To achieve this it is necessary to use skillfully the subunits' possibilities, terrain conditions, to estimate correctly the development of events and to plan each of one's own manoeuvres according to the situation. The more so as the correlation of men and equipment was not in favour of the flank guard.

What did Lieutenant Lavrikov do? While estimating the terrain he had noticed that the entrance to the depression along which the "enemy" was moving was narrow, while the exit from it, restricted by the slopes of Kamenistaya and Peschanaya hills, was a bit wider. In outline the depression resembled an isosceles trapezium. The base, i.e. the exit from the depression to the plateau, did not allow the "enemy" to deploy into battle formation with the necessary intervals and this would inevitably lead to compactness of

subunits and considerably limit the possibilities for manoeuvre.

On the other hand, Lieutenant Lavrikov's platoon had practically unlimited space for manoeuvre. It could close the narrow entrance to the depression easily enough. For this it was enough to concentrate the platoon's fire on it for a short period.

These were the conclusions from the estimation of the situation which prompted the decision taken by the flank guard commander. It boiled down to the following: a patrol vehicle under Sergeant Sirmis to take up position at the entrance to the depression with the mission not to allow a breakthrough of the "enemy" through the neck. The attached tank, making use of natural cover to take up fire position on the northern slope of Kamenistaya Hill and to open flank fire only after the "enemy" deployed into line formation. The remaining two combat vehicles of the platoon to reach the plateau and, constantly manoeuvring, to deliver intensive fire at the column.

Very little time was spent on assigning the mission to the subordinates. Knowing the ground, which they had studied in advance on a terrain mock-up, the commanders of

the fighting vehicles caught Lieutenant Lavrikov's meaning. They skillfully used the peculiarities of the mountainous terrain to their advantage, strictly observing radio silence. Thus the action of the motorised infantry was completely unexpected for the opposing side. A surprise attack and accurate manoeuvring of the infantry fighting vehicles prevented the "enemy" from immediately determining the strength of the flank guard. And when the tank also opened fire at his flank, the "enemy" decided that he had encountered a large subunit and tried to withdraw so as to gain time for a detailed estimation of the situation. But he failed to carry out this concept. The crew of Sergeant Sirmis' infantry fighting vehicle fired only two shots and two "enemy" combat vehicles, put out of action, blocked the exit from the depression for the remaining vehicles. Now the "enemy" was deprived of the possibility to manoeuvre and, consequently, lost all chances of success.

The exercise director highly appraised the actions of Lieutenant Lavrikov and his subordinates. They not only prevented the "enemy" from approaching the protected column but also inflicted considerable losses on him.

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GROUND FORCES

TANK UNITS: CREW FIRE TRAINING DESCRIBED

Moscow SOVIET MILITARY REVIEW in English No 2, Feb 82 pp 20-21

[Article by Maj S. Nikolayev: "Tank Crews' Fire Training"]

[Text]

SPECIAL training is organised for tank crews to teach them how to detect targets and determine their range, to compute basic firing data and to adjust fire and also to develop in them skill in subunit fire control. This training is organised and conducted by the company commander, as he is primarily responsible for its effectiveness and hence for providing the necessary equipment and facilities, attending to the layout of targets and preparing the relevant documents.

Here is an instance illustrating how tankmen's fire training was organised and carried out by Company Commander Senior Lieutenant Berezyuk. To prepare for the forthcoming training he acquainted himself with the battalion headquarters' training plan and copied out the excerpts describing the preparatory training exercises and how to carry them out. After studying the topic of the training to be held, he specified its purpose, the questions to be studied and where they were to be worked up. Then he drew up a concise plan and prepared a special form in which to record how every officer, tank commander and gun layer carried out the preparatory exercises.

Trainees' mistakes are also registered in this record so that the exercise director has a clear picture of his subordinates' training level, and can analyse their mistakes and recommend how to eliminate them. To help him with this record the company commander chose a tank driver whose tank was mounted on a swing frame. Practice shows that such an assistant is quite necessary for the exercise director must be able to concentrate on how the men meet the appropriate standards and cope with the narratives introduced. Keeping close to the company commander the assistant makes records on his ins-

truction.

On the eve of the tank crews' training Senior Lieutenant Berezyuk arrived at the fire training ground to give the appropriate instructions to the platoon leaders and tank commanders on the sequence of actions in the course of training and ordered them to prepare their training places. In particular, he assigned the 1st platoon leader the task to check and prepare for use three tanks mounted on swing frames, the 2nd platoon leader to check the condition of three fire training simulators and the 3rd platoon leader to prepare the place for the men to train in grenade throwing from tanks. Besides this, the platoon leaders checked with the sergeants the condition of armament, sighting devices and radio sets and reported readiness of the equipment to the company commander.

Berezyuk worked on the firing field with the tank drivers and fire training ground operators. They provided three variants for locating targets which were sited at different ranges. Besides, the layout of training targets was prepared to teach the men to operate the fire control system of a platoon.

When the senior lieutenant and his subordinates had made sure that all was ready for the training and that the platoons had everything necessary, they returned to the company lines. There the company personnel were ordered to study the relevant paragraphs of Tank Crews' Firing Instructions, Firing Regulations and Firing Safety Rules.

When the company arrived at the fire training ground Senior Lieutenant Berezyuk announced the topic of the lesson, its purpose, the training questions to be worked up and the sequence in which the platoons were to change training areas. Then he reminded the men of all the precautions to be observed. He ordered the platoon leaders to take the men to their training areas and in 3 or 5 minutes to radio their readiness to begin training. With the assistance of an operator the senior lieutenant checked the condition of the firing field and made sure that each tank had reliable radio communication. Having received his platoon leaders' reports, he ordered them to begin training.

The 1st platoon trained in area No. 1 using rifle cartridges. The platoon was directed by the company commander. First he ordered the gunloaders to draw their ammunition, the tank crews to board the vehicles and then to get ready for action. Meanwhile he watched the men's actions and whether they met the specified time standards.

Having received the report of the tank crews' readiness to open fire Berezyuk specified reference points, the "enemy" position, the specifics of his activities and the method of target detection reporting. Then he gave the order to start. The tank crews switched on the swing frame drives and the operator began to show targets according to the layout which had been handed in to him in advance.

The trainees practised detecting targets, reporting them to their superiors and firing conditional shots. The tank commanders, using eyepiece attachments, checked the correctness of the basic firing data, the laying mark and the aiming point specified by the gun layers and entered this data in the record cards. Then the company commander himself checked the work of every crew and gave the order to open fire.

At the end of the exercise the senior lieutenant gave the order to cease fire and unload the weapons. The tank crews disengaged the swing frame drives, unloaded the weapons, checked by pressing the triggers and reported the results to the company commander. Then they were ordered to board the vehicles. After a brief critique the company commander ordered the members of each crew to change places, thus making tank commanders operate as gun layers. The training continued, but this time a new variant of target showing was used.

The 2nd platoon trained in area No. 2. The men worked on simulators detecting targets by observation, determining target ranges and transmitting target designation data. First the platoon leader ordered the targets to be laid out in an envelope pattern for ten minutes. Then he set missions to the men and specified observation sectors. The tankmen began reconnaissance to detect the targets and determine their range and degree of importance and also to calculate the basic firing data. Then the tank commanders entered the observation data in the record cards and reported to the platoon leader. The following entry may serve as an instance to illustrate the records made on the card: "Reference point 2, 20 Isit, recoilless gun, 1100." The officers checked whether the men coped properly with their missions.

The 3rd platoon practised grenade throwing from tanks in area No. 3. Two training points were set up. At one the platoon leader trained the men to throw grenades and at the other a sergeant explained the design of hand grenades and how to handle them.

The men did the exercises from a dummy tank.

When a trainee reported his readiness to throw, he was ordered to have the grenade at the ready. He then took a grenade out of his knapsack, screwed a fuse into it, unfastened the tank hatch cover and reported that the grenade was at the ready. The platoon leader made sure that all was correct and gave the order: "Target: infantry on the right (left, in front)!"

After the grenade was thrown, the officer examined the target with the trainee and gave the trainee a mark.

The platoons changed places on the company commander's order. Senior Lieutenant Berezyuk devoted the last 30 minutes of training to platoon fire control. In this the 3rd platoon mounted tanks, the 1st platoon worked on simulators and the 2nd on sighting devices mounted on stands and provided with radio communication. Each platoon operated on its own radio frequency so that orders could be received only by its own crews.

The training proceeded as follows. The company commander set the platoons a combat mission and ordered them to board the vehicles and to be ready for battle. On the exercise director's order the operator showed the targets. The tank commanders and gun layers detected the targets, calculated their ranges and reported this to the platoon leaders. The latter made the necessary adjustments and assigned fire missions.

When platoon fire control had been worked up, the company commander lined the men up and listened to the officers' reports. On the basis of these reports and his own observations he analysed the actions of each platoon and gave them marks.

The tank crews' fire training ended with a general critique. The company commander summed up and noted those who had the best results. Then he analysed the mistakes made by the trainees and set a time by which they had to be corrected.

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GROUND FORCES

IMPROVING SOLDIERS THROUGH DISCIPLINE DISCUSSED

Moscow AGITATOR ARMI I FLOTA in Russian No 20, Oct 81 (signed to press 9 Oct 81)
pp 10-12

[Article by Guards Major General B. Polkovnitsyn, commander of the Guards Taman' Motorized Rifle Division imeni M. I. Kalinin, delegate to the 26th CPSU Congress: "Insuring Adherence to Regulations"]

[Text] Personnel of the Guards Taman' Motorized Rifle Division imeni M. I. Kalinin, which has been entrusted to my command, completed their combat training successfully in the year of the 26th Party Congress. The division successfully fulfilled its obligations in competition with the slogan "For Combat Readiness and Strict Adherence to Military Regulations!" Inspired by the far-reaching plans the party and people have for building communism, as well as by the high ratings accorded the Armed Forces by Comrade L. I. Brezhnev at the 26th CPSU Congress, the Tamantsy are directing their full efforts and energies toward the objective of achieving every hour of every day of their combat training tangible results in their striving to increase their combat readiness and tighten military discipline. Troops under the command of officers S. Kapitonov and N. Isayev have been leaders in competition for a number of years now. What is the secret of their success? It is to be found above all in a strict adherence to regulation procedures and tight military discipline.

It has been pointed out in the course of reporting and election meetings that the party organizations of division units (chast') and subunits (podrazdeleniye) have become true centers of ideological indoctrination activities. They have set the task of practically responding in the life of each subunit to the call "Outstanding service begins with good order." Taking this principle as of paramount importance in their organizational activities, subunit commanders and activists are consistently carrying out other training and educational tasks as well.

Heeding our party's declaration that when it comes to combat readiness there are no and can be no trifles, unit and subunit commanders and activists are keeping their attention focused as well upon improving the organization of unit and subunit administration and the material, cultural and personal-services support provided their personnel. These questions are not being stricken from the agendas of meetings of our party and Komsomol organizations, and they constitute the basis of the work of our political agitation activists.

Military practice confirms that where you find a rigorous adherence to military regulations you will also find tighter discipline, better organization, higher levels of combat readiness and better cohesion among personnel.

Exemplary internal order is one of the most important factors in the creation of conditions conducive to productive work on the part of our personnel, tight discipline and greater vigilance and combat readiness in our subunits and units. And a formation (soyedeniye) of many collectives performing their combat training tasks in a first-rate, well organized manner will also be able to maintain a strict adherence to regulations. It is at precisely this level that commanders, political personnel, communists and activists engaged in political agitation develop in their troops the desired high moral and political qualities, tight discipline, the proper official inter-relationships and the ability and the strength to achieve mastery and control of themselves and endure steadfastly the hardships of military service.

Personnel, for example, of the motorized rifle battalion under the command of Guards Major A. Komyak, who wears the Badge of Honor, perform their tasks in a consistent, purposeful manner. This battalion always maintains an exemplary internal organization. As a rule, personnel of the daily duty detail perform their tasks without reprimand or reminder and adhere rigorously to the requirements of the daily routine; their training enjoys good material support. All these factors put personnel here in the proper frame of mind for effective accomplishment of their combat training tasks.

The rigorous daily demands of commanders, the fire and enthusiasm of political agitation activists, adherence to principle, the demands and expectations of comrades, concern and attention to people and the personal needs--all is oriented here toward insuring strict adherence to regulation military procedures.

To establish and maintain rigorous adherence to regulations in internal organization and administration within a unit or on board a ship (within a subunit), to deal immediately with departures they observe from proper service procedures and decisively put an end to any activities which could be detrimental to the combat effectiveness of a unit or ship (subunit)--these are the obligations imposed upon commanders by the Internal Service Regulations of the Armed Forces of the USSR.

Daily observation by staff and political department personnel of the state of internal operations and study of the manner in which officers, warrant officers and NCOs perform their duties permit timely identification of deficiencies in educational work within a particular collective, implementation of organizational measures and effective assistance to units and subunits in establishing proper internal procedures and monitoring progress in the fulfillment of obligations as well as the quality of mass agitational activities.

Establishment of strict regulation procedures and continuous concern for strengthening this regime make it possible for our commanders and political personnel to organize their men well and insure good unit and subunit mobility as well as the continuous readiness of these organizations for immediate and effective action.

Also playing an important role at this level of operation are subunit competitions for model internal organization, the work of people's control groups and quarterly meetings of senior unit personnel to deal with questions associated with the maintenance and improvement of internal subunit operations.

Order and discipline are closely inter-related and interdependent in the life of the army. No subunit can maintain a rigorous adherence to regulation procedure without strict discipline and vice versa. Members of the formation agitprop organization keep their attention centered on these themes. Communists P. Nesteruk, M. Vinokurov and L. Zadorozhnyy helped put together a series of lectures on the subjects of increasing

adherence to regulation procedures and strengthening military discipline. Among them are the following: "Strict Internal Organization--An Integral Component of High Subunit Combat Readiness," "The NCO--Pillar of a Rigorous Regulation Regime," "For a Healthy Military Life" and others.

In the course of meetings, lectures and mass agitational presentations our activists always emphasize that each soldier must be demanding first of all of himself. I believe that adherence to moral and ethical norms on the part of our commanders, teachers of the soldier masses, is of particular importance.

Their compliance with the requirements of military regulations, the military oath and of service obligations, tactful attitude and behavior in relations with subordinates and high standards of personal life all have the greatest impact upon the education and development of our personnel. For then these educators become exemplars of honorable service to the motherland. Among them I would like to mention S. Kapitonov, I. Isayev and S. Ovcharenko. Rigorous demandingness of both themselves and their subordinates is a principle governing their lives and service. Troops in their subunits carry out any of their orders or instructions quickly and efficiently, but above all willingly.

It is at the same time impossible not to mention those teachers, educators who occasionally attempt to justify indifference to the needs of their subordinates or an inability to establish their operations in accordance with regulation procedures by reference to a variety of "objective" reasons. They always deserve severe criticism. On one occasion officer I. Glazkov relaxed his attention to internal operations. This resulted in a deterioration of discipline within his subunit. The party organization reminded him that a communist educator is personally responsible for the maintenance of exemplary order within his subunit. Adherence to principle, friendly guidance from superiors and comradely advice helped this officer analyze his mistakes.

The decree "Further Improvement of Ideological and Political Indoctrination Activities" refers to service in the Armed Forces as an excellent school in which to develop both military and vocational skills, moral purity, courage, patriotism and comradeliness. The basic textbooks are the general military manuals distilling many years' practical experience in training and educating Soviet military personnel. By thoroughly studying and becoming aware of the requirements they contain, our Tamantsy are striving honorably to fulfill the obligation of a defender of the constructive, creative labors of their people and of their fatherland and to establish our collective among the leading formations of the Armed Forces.

Our division offers no small number of examples of people providing models of selfless devotion to duty. Among them I would mention Guards Warrant Officer G. Perepelkov. As his subunit starshina, he strives insistently for rigorous expedition on the part of his subordinates and compliance with army regulations governing conduct and procedures. Following his example his men participate actively in establishing subunit operations on a basis in rigorous accord with regulation requirements, consistently demonstrating personal initiative in the process. Among the company starshina's reliable assistants are to be found Guardsmen V. Belevtsev, V. Kuligin, N. Shevtsov and others.

The division staff devotes a great deal of attention to the organization of demonstration instruction and to the training of command personnel and the party and agitational aktiv. The independent battalion under the command of Guards Lieutenant Colonel G. Malyshov, for example, serves as the base for methods instruction and demonstration presentations dealing with the organization of the daily duty detail, establishment of exemplary subunit operational procedures etc. Competitive inspections for the best barracks organization have become a tradition within the formation.

In his address to the personnel of our division, Marshal of the Soviet Union D. F. Ustinov, member of the Politburo of the CPSU Central Committee and Minister of Defense of the USSR, expressed his confidence that the Tamantsy would stand as a beacon for all formations in the Armed Forces of the USSR. These Guardsmen are holding high their honored designation as a leading formation this year of the 26th CPSU Congress. A guarantee of our success lies in the great upsurge of patriotic enthusiasm among the Tamantsy and their faithfulness to the heroic traditions of our illustrious Guards formation.

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GROUND FORCES

PEOPLE'S CONTROLLERS IN ECONOMY, TECHNICAL MAINTENANCE

Moscow AGITATOR ARMI I FLOTA in Russian No 22, Nov 81 (signed to press 10 Nov 81)
pp 15-18

[Article by Major General V. Glushchets, Group of Soviet Forces, Germany: "Work More Vigorously, Work More Aggressively; Implement the Decisions of the 26th CPSU Congress!"]

[Text] Not a single irregularity, not a single instance of abuse, waste or indiscipline should escape the watchful eye of our people's controllers. To work more vigorously, work more aggressively--that is the task the CPSU Central Committee has set them.

L. I. Brezhnev

The materials and decisions of the 26th CPSU Congress impose many tasks upon our public watches, including the people's control organizations in the military.

The period following the publication of the CPSU Central Committee decree "Measures to Improve the Work of People's Control Organs and Strengthen Party Direction in accordance with Adoption of the Law on People's Control in the USSR," and particularly after the 26th Party Congress in GSFG [Group of Soviet Forces in Germany], has seen an intensification of the activities of our people's watches. Providing an important new impetus to this effort have been the recently published decrees of the party Central Committee and then of the CPSU Central Committee and USSR Council of Ministers "Improvement of Control and Verification of Performance in Light of the Decisions of the 26th CPSU Congress" and "Intensification of the Effort to Achieve Economies and Insure Efficient Use of Raw Materials and Fuel and Energy and other Material Resources."

The people's control groups and centers whose personnel include Yu. Lanyshin, A. Novikov, A. Khachaturov, V. Skvortsov, A. Serakov, A. Kiselev and many others provide a good example of persistent effort in the campaign to achieve economies.

What is instructive about their work? Above all their integrated, comprehensive approach to the solution of problems associated with the campaign to achieve greater economies. In the process of developing a program of measures to intensify this effort they give special attention to such questions as raising the level of economic knowledge of our military personnel, the organization of socialist competition to achieve economies in the use of material resources and extensive adoption of suggestions for greater efficiency.

This approach to the problem is yielding tangible results. The unit (chast') communist A. Fedorov serves in, for example, has overfulfilled its plan for economies to be achieved in the use of material and financial resources almost 1.5-fold so far this year. It has saved 8 tons of bread, some 200 tons of coal, several tens of thousands of kilowatt-hours of electricity, approximately 5000 m³ of water and no small quantities of fuel and lubricants. The people here use the material resources they have been allocated efficiently and competently. By extending the service life of materials and equipment they have achieved savings in excess of 1000 rubles. Behind these figures lie the enormous, painstaking labors of the commanders, political and administrative personnel, communists, members of the trade union, Komsomol members and groups and posts of the unit people's control organization.

The people's controllers in the Group of Forces are devoting their attention above all to the development of care and frugality in personnel in respect of their handling of weapons and equipment. These inspectors concentrate their main efforts upon prevention and the anticipation of deficiencies. They participate actively in the dissemination of technical military propaganda, deliver lectures, hold discussions, help prepare and distribute technical information, conduct evening question-and-answer sessions and help put out technical bulletins. They closely coordinate their activities in monitoring efforts to develop a concerned and frugal approach to the operation of weapons and equipment with technical-service officers and the party and Komsomol aktiv.

In pointing out this important aspect of their work I would like to stress that these activists are well aware of the fact that the primary purpose of control is not only to bring to light and make note of deficiencies, but above all to make sure they are remedied as quickly as possible as well.

Many collectives have accumulated practical experience in insuring that equipment is properly operated and cared for. Take the subunit, for example, in which officer V. Kharitoshin serves. Most of the measures people's controllers take here involve problems with combat readiness: they make a systematic study of problems connected with the storage and operation of motor vehicles and armor, compliance with regulations governing maintenance and repairs, the use of spare parts and economies in the use of motor-transport resources and fuels and lubricants. Prior to each departure for a tactical exercise people's control activists conduct surprise inspections to check motor vehicles and armor. During the course of an exercise they monitor the quality of the care and maintenance performed on equipment and work to insure strict compliance with regulations governing the operation of vehicles and machinery and economical use of motor transport resources and fuel. The result has been exercises free of instances in which equipment could have malfunctioned or weapons failed.

The work of the people's control post in the aviation unit under the command of Major V. Trokay is also highly instructive. With the active assistance of officers A. Sal'nikov, N. Gorpunov and others, inspectors have checked performance in such important categories as the use and consumption of film for automatic flight-parameter recording equipment, storage and record-keeping on silver-zinc storage batteries and the condition of monitoring and measuring equipment. The results of these checks were thoroughly analyzed at a meeting of senior supervisory personnel as well as at meetings held within party organizations. The commander issued an order concerning steps to be taken to remedy the deficiencies that had been brought to light and to punish those responsible for irregularities.

Life demonstrates that the effectiveness of our people's control depends to a great extent upon how well we plan the activities of our public inspectors and the thought we put into the selection of our activists. Commanders, political personnel and our

party organizations are called upon to render inspectors a great deal of assistance in this effort. As a rule, things go much better where this requirement is fully satisfied.

Take, for example, the work of the people's control group in the unit in which Major G. Gorbulin serves as political officer. Most importantly, this group's entire effort is carefully planned with regard to problems, times and installations. The commander, his deputy for political affairs and the party committee keep themselves continuously informed of controller concerns, hear them out at party meetings and keep them supplied with problems to be looked into. When this becomes necessary, the unit organizes combined inspections, in which participate party committee members as well as other activists. Any time deficiencies are brought to light the commander and party committee take steps to rectify the situation. The efforts of the people's controllers in this unit has therefore been distinguished by a high degree of effectiveness. It occurs as no coincidence that in many categories it is one of the best in the Group of Forces.

As has already been pointed out, the Group has, overall, accomplished no little in the way of improving the work of its people's controllers and in intensifying the effort to economize. But shortcomings nevertheless remain here. What our activists do accomplish is not always effective enough. While it is infrequently, we do still encounter instances of abuse and in which we see a tolerance of irregularities, cases where individual people's controllers fail to take a pointed, principled stand against irresponsible attitudes toward the need to achieve economies in the use of materials and equipment as well as in the expenditure of funds. In some places we can not infrequently still see a picture in which, for example, on a clear day with bright sunshine and normal natural light inside service facilities, mess halls and barracks sleeping quarters there will be dozens of electric lights on. And yet inspectors remain indifferent to this waste.

Here's an example. Komsomol'skiy prozhektor members A. Tatarchenko, V. Serdyukov and A. Korobkov conducted a surprise inspection one day of the electric energy conservation practices in place in subunits of one of our aviation units. And what did they find? They were living with light in the daytime here, as the saying has it. An idle lathe droned on in one of the buildings. It was a good 12 o'clock noon but the lights around the squadron hardstand had not been turned off. Unfortunately, however, the Komsomol members responsible for this, M. Bayramov, A. Spodnyuk and A. Andreyev, had "forgotten" their responsibilities, and the inspectors failed to remind them of them.

Or another instance. In accordance with GSFG people's control committee plans, an inspection was conducted to check on the storage and care being given transport vehicles, armor and weapons in the units in which serve officers A. Nazarov, Yu. Kurmatov and K. Godin. The inspection revealed much that was positive. At the same time, however, it brought to light substantial deficiencies: equipment maintenance was not being performed on schedule in some places; as a result of poor maintenance, a number of units and equipment for several machines were no longer in working condition and repairs on motor vehicles and armor were occasionally of poor quality. The inspection also established the fact that funds were not always being spent effectively or for the specific purpose for which they had been allocated. Covers and tires for the official vehicles of a number of officials had been obtained illegally.

All this had occurred because unit efforts to maintain and protect socialist property, equipment, weapons and service property were not always being well coordinated. Despite the fact that it conducts regular inspections, the people's control group headed by Major Yu. Konik, for example, fail properly to monitor steps taken to rectify deficiencies it brings to light.

Documents from the 26th Party Congress and CPSU Central Committee decrees on measures to improve the functioning of the agencies of people's control and strengthen party direction of these activities set forth important tasks, the essence of which consists in insuring consistent implementation of provisions of the Law on People's Control in the USSR. What we are talking about here is the need to strive continuously to insure that the people's control effort becomes more vigorous and effective and contributes in every possible way to the further development of the socialist economy, to a tightening of state and planning discipline, to an improvement in procedures and organization, to greater responsibility on the part of all for the tasks with which they have been charged and to strict compliance with the law at all levels of the national economy. No small role is to be played in this effort by our agitators and propagandists.

At the same time, our agitators specializing in the spoken word need to do everything they can to enhance the quality and effectiveness of their indoctrinational effort. They need to provide personnel with thorough explanations of the requirements the 26th CPSU Congress has imposed for efficient and effective use of material and financial resources, frugality and judiciousness in attitudes toward public property and thrift and economy in all spheres of activity on the part of the Soviet people, including armed forces personnel. To achieve these objectives it is extremely important that we employ to better effect our rich arsenal of mass agitational activities and do everything we can to develop the movement among armed forces collectives for economical expenditure of state resources.

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GROUND FORCES

AIRBORNE TROOPS: EDUCATIONAL ROLE OF SERVICE DISCUSSED

Moscow AGITATOR ARMII I FLOTA in Russian No 22, Nov 81 (signed to press 10 Nov 81)
pp 21-24

[Article by Major General S. Smirnov, chief, political department, airborne troops:
"A School for Life, A School for Education"]

[Text] This incident occurred in the course of the Zapad-81 exercise. At the signal "Go!" Guards PFC L. Manokha jumped from his aircraft following his comrades. After counting off the proper number of seconds he pulled the ring and then felt the jerk--his parachute had opened. At that very instant another paratrooper, Guards Junior Sergeant A. Uporov, drifted into his canopy.

A critical situation had arisen in the air which threatened the lives of both men. PFC Manokha could have gotten out of it simply by cutting his main parachute loose and opening his reserve. But he saw that the other man was all tangled up in the lines; he could not do that. So the private first-class made a different decision, one at once more difficult and more dangerous--to open his reserve without cutting loose from his main parachute and thus easing Junior Sergeant Uporov to Earth.

As difficult as it was, the two paratroopers had to land in full combat gear on the small canopy of a single reserve parachute. But high standards of training and good physical conditioning helped them cope with this problem. After landing safely, Guards Junior Sergeant A. Uporov and Guards PFC L. Manokha both turned in a good performance during the exercise. By ukase of the Presidium of the USSR Supreme Soviet, both soldiers were awarded the Order of the Red Star for courage and valor demonstrated in the course of a military exercise.

In a difficult situation, Soviet soldiers thus demonstrated determination, great courage, enviable self-control, great mastery of combat skills and concern for a comrade. It was their service in the army that had developed these outstanding qualities in them.

Army service.... How many hopes our young men called to the colors of the Soviet Army associate with it! Young people dream of learning a good specialty, conditioning themselves physically, learning courage and valor and receiving political training. They see all these hopes realized fully. It is not for nothing that our people look upon the Soviet Armed Forces as a true school for life, a school for education.

It is recommended that this article be used in preparation for political instruction on the subject "The Soviet Armed Forces--A School for Ideological Tempering, Military Training, Strict Discipline and Military Friendship and Comradeship."

What are the factors determining this great educational role army service plays? First of all, the special social nature of the army of a socialist state. The Soviet Armed Forces constitute an army of a new type, an army of liberated workers and peasants. Their primary task consists in insuring a reliable defense of the gains of socialism and in standing a vigilant guard in the maintenance of world peace. The honored mission with which our Armed Forces have been charged creates excellent opportunities and conditions in which to instill in each Soviet fighting man a sense of personal responsibility for the historical fortunes of socialism and for the security of our great motherland.

The Communist Party of the Soviet Union attaches great value to the enormous role the Soviet Army plays in our country's educational effort. In pointing to this role, Comrade L. I. Brezhnev, general secretary of the CPSU Central Committee and chairman of the Presidium of the USSR Supreme Soviet, said: "Young men come into this family of soldiers having had no schooling in life. But then they leave the army as people who have gone through a school for endurance and discipline, a school in which they have acquired technical and vocational knowledge and skills and undergone political education."

The great importance attached to the educational role played by the Soviet Army, emphasizes Marshal of the Soviet Union D. F. Ustinov, member of the CPSU Central Committee Politburo and USSR Minister of Defense, imposes heavy obligations upon commanders, political personnel, political organs and party organizations and requires that they organize their entire educational effort so as to promote the continuous maturation of the political consciousness of their personnel, their consistent professional military development and the most rapid mastery of military combat skills possible.

The requirement that all commanders and political personnel enhance the educational role of army service is imposed by the decisions of the 26th Party Congress and the CPSU Central Committee decree "Further Improvement of Ideological Work and Political Indoctrination." These objectives provide guidance in daily educational activities for commanders, political personnel, political organs and our armed forces party and Komsomol organizations.

Army training and conditioning help reserve troops in their constructive peacetime labors as well. They demonstrate an aggressive spirit in their work at the machine, in the fields on the kolkhoz and in their institutions; they display selflessness, a mastery of their specialty skills and steadfast comradeship--all these the notable qualities the army has developed in them. The names of many former airborne troops are known to the entire country.

Paratrooper Prokofiy Vasil'yevich Nektov returned from the front an invalid who had lost both legs. He came back and went right to work on his old kolkhoz as a tractor and combine operator. And how he worked! For his valiant labors he was awarded the Order of Lenin and then the high title of Hero of Socialist Labor.

Political worker M. V. Pasechnik fought valiantly as a member of the 5th airborne brigade defending Kiev in 1941. He served through the entire war and is now an academician and vice-president of the Ukrainian SSR Academy of Sciences. Former paratroopers K. Ya. Vanshenkin, V. I. Fedorov and V. P. Tel'pugov today are writers known throughout the country; G. N. Chukhrai and Ya. A. Segel' are film directors....

Warrant Officer (Res) A. L. Matveyev completed his service in one of our airborne units not too long ago. He served in exemplary fashion and now works in an identical manner at his old plant. Now shining on his chest are two Orders of Lenin and the gold medal of the Hero of Socialist Labor.

Talk to any of these people. They will invariably tell you that the army's school of personal development and education and the qualities instilled in them by commanders and political personnel are now of great help to them in their working lives.

In his CPSU Central Committee report to the 26th Party Congress, Comrade L. I. Brezhnev, general secretary of the CPSU Central Committee and Chairman of the Presidium of the USSR Supreme Soviet, said: "Now serving in the ranks of the motherland's defenders are the sons and grandsons of the heroes of the Great Patriotic War. They have not undergone the harsh and bitter tests that were the lot of their fathers and grandfathers. But they are nevertheless true to the heroic traditions of our army and our people. And every time the interests of our national security or of the preservation of the peace require it, when it becomes necessary to go to the aid of the victims of aggression, the Soviet soldier stands before the world as a selfless and courageous patriot and as an internationalist, prepared to overcome any difficulties."

You once again become convinced of this when you hear about the noted feats paratroopers perform, which confirm the truth of the saying that there will always be a place in life for the great deed. All paratroopers are familiar with the names of Guards Senior Sergeants Aleksandr Mironenko and Nikolay Chepik. They demonstrated great courage and valor in peacetime; for what they did they were awarded the title Hero of the Soviet Union and inscribed for all time in the rolls of the units in which they served.

In demonstrating their concern for the effort to enhance the educative role of army service, commanders, political personnel and party and Komsomol organizations are now doing a great many things to improve the full range of ideological, political indoctrinational activities conducted at unit and subunit level. We can without equivocation say that this effort is being reorganized, restructured. Considerably more attention is now being paid to actually working with people; greater concern is being demonstrated for satisfaction of the growing inner, psychological needs paratroopers have. Activities for them are being more closely related to their everyday lives and with combat and political training tasks. Propaganda and agitation, now more aggressive and militant, is being conducted on a higher scientific plane.

Leading an interesting, ideologically rich life, for example, is the Komsomol organization of N airborne unit (chast'), where until recently Guards Senior Lieutenant Ya. F. Grin' was Komsomol committee secretary. He has now been promoted to a new position. The troops here are putting a great deal of effort and energy into the all-Union Lenin competition "Implement the Decisions of the 26th Party Congress!" In fulfilling overall individual plans, Komsomol members are studying the works of V. I. Lenin and the decisions of the 26th Party Congress. Komsomol organizations hold Lenin readings, conduct lessons, present interesting evening programs on a variety of topics and hold debates and discussions of books which have been read.

Army service plays its educative role not only in the course of the ideological effort involved, however. All aspects of army service are enormously important in this regard, especially the combat training. The military duty a soldier performs finds a link with the work of the worker and the peasant. The noteworthy qualities former service personnel now display in their labors for the good of the motherland began to develop in the course of their exercises in field and classroom, on the tank training area and the firing range and in the process of surmounting all the difficulties, great and small, associated with military service.

It is especially important in this connection that all military training exercises be conducted in a well organized manner, without blind adherence to convention, without oversimplification, so as to present personnel with difficult situations requiring of them a full exertion of physical energies and a demonstration of courage and selfsacrifice. "The educative role played by the performance of military duties," points out Army General A. A. Yepishev, chief of the main political directorate of the Soviet Armed Forces, "finds its full realization only when these duties are well organized and enjoy material, organizational, moral and political support." What he is saying here, that is, is that all combat training must be illuminated through a political approach so that in the course of his instruction and study a soldier comes to recognize the great measure of responsibility which has been imposed upon him for the security of our motherland and for defending the peaceful labors of the Soviet people.

It would be difficult to overestimate the role our officers--commanders and political personnel--play in enhancing the educative role of army service. They are the representatives of the party and the state in the army and perform the important task of training and educating Soviet soldiers. It is upon their skill and competence that depend the qualities that a soldier or NCO will develop in the course of his service in the army. That is why concern for the education of the educators themselves and for improving their methodological practices, military and political knowledge and teaching skills is always to be found a focus of attention.

A letter recently arrived in the airborne troops political department. Here is what it said:

"We are the parents of Junior Sergeant Aleksandr Martynenko. Recently we visited the unit our son serves in. We arrived in the evening; we went to the check point where we explained who we were and whom we had come to see. Two or three minutes later an officer came out, a Captain Abramov. The first thing he asked us was what arrangements we had made for accommodations and where. We told him we had just arrived. So the captain took care of us. A car came up, and he went with us to a hotel where we arranged to stay. We were impressed with Captain Abramov's warmth and concern.

"The next day we went back to the unit. Here we were met by Major Gmyrya and Major Martynenko (a namesake of our son). They talked with us for a little while. Then at our request we were permitted to have a look at the barracks and the Lenin room. Everything was clean and orderly. Our son had changed a lot; he had become more serious, more mature.

"It did us good to be able to meet these officers, these good and wise educators. From the bottom of our hearts we want to thank them for the expert training and instruction they provide Soviet soldiers--our sons."

These heartfelt words represent the people's estimate of the work our commanders and political officers are doing. They have inspired all of us to strive still more persistently and to enhance still further the educational role played by the Soviet Armed Forces.

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AIR DEFENSE FORCES

PARTY-POLITICAL WORK DURING COMBAT ALERT DUTY

Moscow SOVIET MILITARY REVIEW in English No 2, Feb 82 pp 34-35

[Article by Maj Ye. Grigor'yev, under the rubric "The Making of a Soldier":
"Enhancing Combat Readiness"]

[Text]

NIGHT FELL, everything seemed to slumber, life seemed at a standstill. But the missilemen were vigilant on combat alert duty at their stations. As soon as "enemy" aircraft were reported, everything sprang into motion. The missilemen got ready for battle, and a few minutes later, "destroyed" air targets heading for the defended installation on the far approaches to the air defence area.

This is a habitual episode from the combat activity of the missile battalion where Captain V. Gerasimov is secretary of the Party organisation. The missilemen are always on the alert. More than once they have intercepted practice targets, thereby confirming their readiness to bar the way to the Soviet skies to any air intruder. This is achieved largely due to the missilemen's excellent combat training standard and perfect teamwork. The men's fighting spirit, as well as their moral and psychological condition, are of no lesser importance.

The battalion command show constant care to maintain the missilemen's high moral spirit and awareness of their personal responsibility for vigilant performance of their service duties. The multi-faceted Party-political work carried out in subunits is aimed at ensuring watchful execution of combat alert duty. It was once decided, before taking up duty, to hold a thematic get-together devoted to the Soviet people's combat and labour traditions. The missilemen played host to the former pilot Colonel (Ret.) V. Gridnev, a participant in the Great Patriotic War (1941-45), and oil driller team leader F. Veliyev. V. Gridnev recounted his reminiscences of Soviet fighting men's courage and valour during the last war, and F. Veliyev told about his team-mates' labour achievements and about the enthusiasm displayed by Soviet people to implement the decisions

of the 26th CPSU Congress. After this Captain Panchenko, Sergeant Rakita and Private Khmelinin spoke about the missilemen's responsibility for ensuring the Soviet people's peaceful labour and the Motherland's reliable defence.

On the eve of taking up duty batteries held general meetings of the personnel at which missilemen discussed collective and personal social obligations for the duty period. These obligations were aimed at reducing the time of getting the equipment in standby condition, rendering mutual assistance and mastering related specialities. Party and YCL activists had talks with crew members, urging them to display vigilance and persistence in carrying out the assigned missions and thus to multiply the traditions of that excellent battalion.

Broad use was made in the batteries of materials published in the periodic press telling about the aggressive designs of the enemies of peace and détente. Radio newspaper broadcasts were devoted to the same subject. The battalion commander, political workers, secretary of the Party bureau and activists made every effort to explain in the best way possible the demands made by the Communist Party and the Soviet Government on the Motherland's armed defenders.

Success of combat alert duty largely depends on the operativeness and purposefulness of Party-political work. Besides organising the entire activity of the duty shift, the commander directed Party-political work with the help of his deputy for political affairs and the Party and YCL activists.

Combat alert duty naturally reduces the time for collective Party-political work. Nevertheless, Party influence on servicemen did not slacken, and this was largely due to timely distribution of Party and YCL activists, who set personal examples to servicemen. Mutual aid among crew members and spreading of the best specialists' experience were also organised.

The best means to mobilise servicemen to carry out combat alert duty are confident actions and clear-cut instructions of the duty shift commander and other chiefs. Realising this, Communists Major Samarsky, Captain Gerasimov and Senior Lieutenant Filatov strove to be poised, concentrated and full of consideration for the men.

Coming to the command post one day, Major Samarsky asked Sergeant Yurkin how he was getting on. This was no idle question. The young commander had been very nervous and made mistakes in his service duties. During training Samarsky did not reprimand or scold him. He patiently explained the causes of his shortcomings and made suggestions as to the best way to act when locking on and tracking air targets. Repeat-

ed training lessons enabled Yurkin to acquire the necessary skills. However, Major Samarsky could not be quite sure that the sergeant would not make any more mistakes. That was why he continued to watch him closely.

After listening to the sergeant's report, the officer specified the air situation, asked what difficulties the crew members met with and made some useful recommendations. Everything Samarsky did might have seemed a matter of routine, but it made Yurkin feel calmer, more confident.

Great significance during combat alert duty is attached not only to knowledge and precision of actions in operating the intricate missile systems, but also to the ability to overcome enormous nervous and physical strain and to display extreme self-possession. This ability is largely determined by the men's emotional condition. Bearing this in mind, the commander, his deputy for political affairs and the Party and YCL activists were careful to provide favourable conditions for the missilemen to perform their duties as best they could. On the other hand, they were exacting towards the men and intransigent in respect of shortcomings.

It once happened at a training lesson that before taking up duty Privates Azimov and Taganov failed to comply with the time limits for loading the launching system. Senior Lieutenant Filatov, who was in charge of the training, wondered what was wrong. It turned out that both soldiers, experienced as they were, thought it unnecessary to apply themselves fully to a training lesson, believing it better to save up their efforts for combat alert duty. Filatov explained to them that their point of view was erroneous and became more exacting towards them during their tours of combat alert duty.

During duty hours the activists were most attentive to the men's problems, helping them fulfil complicated tasks and putting them on their guard against mistakes.

The tour of duty was followed by a critique, at which the shift commander and crew leaders analysed the causes of both successes and shortcomings. In assessing each man's actions, they took account of his activeness, initiative and disciplinedness.

Combat alert duty helps to merge combat training and Party-political work, for it is then that the servicemen's thoughts, feelings and convictions receive practical application. Experience has shown that the more purposeful and specific Party-political work, the higher are the servicemen's achievements.

NAVAL FORCES

SHIP SURVIVABILITY FACTORS

Moscow VOYENNYE ZNANIYA in Russian No 1, Jan 82 (signed to press 8 Dec 81) p 45

[Article by Capt 1st Rank V. Pan'kov and Lt-Engr L. Kuznetsov: "Ship Flooding Resistance"]

[Text] As a complex engineering construction, a ship must possess a full range of properties and qualities, among which survivability is paramount. Survivability can be briefly defined as the capacity of a ship to overcome combat and operational damage while maintaining or restoring its combat capability as much as possible.

Survivability is a complex concept. It encompasses such properties as strength, resistance to flooding, explosion and fire safety, endurance of shipboard equipment, and protection of the crew.

Provision of ship survivability is given full consideration in the design stage -- the initial stage of the ship's construction. Each ship is divided into watertight bulkheads and decks, upon which watertight hatches, doors, and manholes are installed. Ships are fitted with powerful bilge pumping systems, fire extinguishing systems, and emergency and rescue equipment. The most modern materials are used to maintain the strength of a ship. A specific reserve of strength is made a factor in design calculations, the hull is coated with special anticorrosion compounds, and the condition of the hull is monitored continuously while the ship is in service.

The most vital devices, machinery, and equipment are placed in special watertight and soundproof enclosures to provide for the survivability of technical gear and to maintain it in a high state of readiness. All devices and machinery are given reinforced strength and shock resistance and are mounted on shock absorbers and special suspensions.

Protection of the crew is given particular emphasis within designs for survivability. Every effort is made to maintain the integrity of the hull for as many battle stations as possible, when the crew is engaged in combat operations. The hull itself, if necessary, can be rapidly sealed to prevent the penetration into compartments of contaminated air, toxic substances, or water. Under full pressurization, the vital activities of personnel are supported by efficient air conditioning systems, as well as by stores of drinking water and provisions that are kept within the hull. The concentration of harmful substances in compartment spaces is maintained below permissible limits at all times. Individual crew members are supplied with personal gear for protection from mass destruction weapons.

An integral component of ship survivability is resistance to flooding, which is the capacity of the ship to withstand partial damage to watertight integrity of the hull and the flooding of inner spaces while maintaining its seagoing and tactical characteristics. Resistance to flooding could also be defined as the ability of a ship to remain afloat and avoid capsizing during the flooding of watertight spaces.

Resistance to flooding for submarines is divided into surface and submerged forms. Submerged resistance to flooding involves the capacity of a submarine to resist descending to depths that exceed tolerable ones when water penetrates the pressure hull, or the capacity to surface or rest on a portion of the ocean bottom that does not endanger the strength of the inner compartment bulkheads.

As with the survivability of the ship in general, resistance to flooding is activated when there is hull damage or on other occasions in which water enters the hull. Evaluations of resistance to flooding are based on the permissible flooding that the ship can withstand while remaining afloat. Varying standards for resistance to flooding are formulated for different type vessels. A ship can survive flooding of a least one, two contiguous, or three compartments as a factor of its displacement and structure.

Changes in the draft, list, trim, and other parameters (occasionally even in the ship's residual freeboard) serve as qualitative measures of resistance to flooding.

Construction and organizational and engineering measures are introduced to provide resistance to flooding. Construction measures include division of the ship into compartments containing watertight bulkheads; the fitting of the compartments with pumping, drainage, and by-pass systems; and the supplementing of existing reserves of buoyancy and stability. Generally, these measures are introduced during the building of the ship. Organization and engineering measures are carried out over the full period of service of the ship. These involve the maintenance of all equipment and also include the upkeep of the watertightness of the hull and the organization of the training and indoctrination of the crew.

We will now examine in greater detail the maintenance and upkeep of the resistance to flooding system for a surface vessel in which water has penetrated the hull.

The reserves of buoyancy and stability play a key role. The buoyancy is equivalent to the internal watertight volume of the ship above the waterline. The volume can be as much as 150 to 200 percent for surface vessels and approximately 30 percent for submarines.

The stability of a ship is characterized by its capacity to counteract tilting abnormalities and to return to its initial position when these abnormalities have been adjusted. An indicator of stability is the metacentric height or the elevation of the metacenter over the ship's center of gravity. The metacenter is the center of the curvature of the curve along which the center of the magnitude of the volume that a ship submerged in the water moves during the tilting.

The metacentric height is measured in meters. Here the distinction is made between transverse and longitudinal metacentric heights, which correspond to the transverse and longitudinal stability of the ship. The longitudinal heights are much greater

than the transverse ones and are measured in tens of meters. The transverse metacentric height is critical for surface vessels. Usually it amounts to about 1 meter, and the loss of transverse stability is more significant than losses that occur during flooding of ship compartments.

The presence of water in compartments has a varying effect on the condition of a damaged ship and on its stability. In every case, the buoyancy decreases, but the metacentric height increases only if the flooding occurs much lower than the waterline and the total center of gravity of the ship decreases.

The amount of incoming water can be determined for each watertight compartment as a factor of the type of flooding, while the loss of metacentric height under one form or another of flooding can be calculated early on during the design of the ship using special methods. Flooding of compartments also results in changes in the heel and list. The calculation of such effects when there is damage to the hull is vital for determining the potential of using weapons and equipment.

When there is damage and water has penetrated the hull, righting of the ship is sometimes necessary to restore and maintain battle readiness.

Resistance to flooding control is directed by the engineering officer. Using reports from battle stations and readouts from various instruments, he evaluates the total loss of buoyancy, stability, heel, and list of the ship and identifies the measures necessary for restoring the stability and the righting of the ship.

The most effective measures in resistance to flooding control are the sealing of holes and the pumping of the incoming water overboard. However, such measures are not always feasible, particularly during a battle when damage holes are larger, pumping gear is partially or completely out of service, flooding is accompanied by fires, and the direct effects of the enemy's fire power continue to be felt. Under these circumstances, other measures for resistance to flooding are adopted, such as the draining of water into spaces in the lower sections of the ship, bypassing into other spaces that are less crucial during a battle, and counter flooding.

Counter flooding involves the flooding of undamaged areas to increase stability and reduce heeling and trimming.

The chief objective during the righting of a ship is to restore stability to avoid capsizing. Under counter flooding, positive stability is achieved at the expense of a partial loss of buoyancy.

The righting of a ship is rigorously monitored. Indeed, any mistake whatever during resistance to flooding control operations could have a disastrous outcome involving the loss of life or of the ship itself. To develop smoothworking actions during resistance to flooding control, training is conducted regularly, potential scenarios for flooding are considered, and recommendations are drafted for actions to be taken for controlling the most likely types of damage and flooding.

Thus, resistance to flooding is a fundamental component of every aspect of a ship's survivability. The inculcation and refinement of skills in resistance to flooding control, therefore, is vital for the maintenance of the highest level of combat readiness.

Owing to advanced technology and the skilled actions of the crews, the modern ships of the Soviet Navy possess a high level of survivability and resistance to flooding.

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NAVAL FORCES

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LOGISTICAL SERVICES AND SPECIAL TROOPS

CHEMICAL DEFENSE UNIT: TRAINING RESULTS REVIEWED

Moscow KRSNAYA ZVEZDA in Russian 13 Dec 81 p 1

[Article by Lt Col G. Artemenko, KRSNAYA ZVEZDA correspondent: "When Exactness is Lacking"]

[Text] Capt A. Perebora, commander of a chemical defense unit [chast'] glanced around at those who had gathered in his office. All staff officers and company commanders were present.

"We will summarize the day's training results," Capt Perebora began. "The highest grade was earned by Sr Lt Senin's men. In the subunits [podrazdeleniye] commanded by Sr Lts Snegirev and Shepelev, things are somewhat worse..."

Capt Perebora analyzed in detail the training exercises that had taken place that day in the subunits. It was no accident that he held up Sr Lt Senin as an example. From the first days of the new training year, Sr Lt Senin's subunit has been undergoing its training exercises on a high instructional level. Today was no exception. His men functioned energetically and harmoniously with respect to every training point.

Modern battle presents chemical defense specialists with great demands. And this leaves an imprint on their training--they must often operate in unusual situations during training exercises and drills. Such situations require keenness of wit, ingenuity, a strong will, and many other qualities.

The following incident was related in the subunit. During a certain training exercise the men weren't having any success in completing the covering operation for a river crossing. A strong wind prevented it. Then a group of soldiers headed by Lt A. Kashirin swam across the rough water to an island to provide cover for the crossing operation.

In today's exercise Lt Kashirin's men have been working out its practical aspects element by element. Each crew has a training card on which the sequence of operations for working on a piece of equipment is detailed for each specialist. This facilitates the work of the exercise director and speeds up the training process. An instructional innovation was introduced by Maj L. Volkov. Initial feedback indicates his efforts have not been in vain.

In summing up results the unit commander brought up deficiencies as well. The exercises were not always distinguished by proper organization and effectiveness. In particular, the company commanded by Sr Lt Snegirev was late in beginning them. The officer didn't see to it that all personnel were present. Some of his subordinates--headed by the company first sergeant--were busy working on company administration matters during the training time.

Charges were also directed towards Sr Lt V. Shepelev, commander of a chemical defense special treatment company. One of his platoons was sluggish in conducting a training exercise that involved setting up the special treatment point--they lacked the spirit and effort required. The platoon leader, Lt S. Kamnev, violated proper procedural sequence when working out instructional matters.

It should be noted that, like other subunits, this platoon has younger specialists who have not yet acquired sufficient work habits and skills. Some platoon leaders, however, fail to take this into account and put novices into the same situations they would experienced soldiers.

There were other errors too in organizing the training exercises in the subunits, errors the unit commander did not mention in summing up the day's results. Something might be noted in this regard.

It is important, of course, in summing up results, to mention the omissions and hold the perpetrators strictly responsible. But this is not enough. An objective appraisal of the state of affairs in one area or another presupposes a thorough analysis of the factors that caused such deficiencies and a search for ways to eliminate them. This kind of approach, experience shows, increases the effectiveness of the summing-up session and has a beneficial effect on the quality of combat training.

Capt Perebora, unfortunately, failed to take this into account. His appraisal of how things stood in the subunits was--to put it bluntly--superficial. The deficiencies were merely stated, not thoroughly analyzed. And this was not due to the fact that the commander was unable to see the reasons for the omissions in organizing the training process. Later on in a conversation with Capt Perebora, we expressed an interest in finding out just why, in his opinion, Lt Kamnev committed errors in the training exercises. Perebora unhesitatingly stated the reasons for the young officer's mistakes. It turns out that the recent graduate of a military institute had not thoroughly studied techniques and was inadequately prepared with regard to instructional procedures.

And so the guilty party is the commander himself who fails to devote the required attention to the professional training and readiness of his officers. Here's just one fact. An accelerated training program has been developed for the training of specialists. But there are some young officers who don't even know about it. And this is after platoon-leader meetings have taken place in the unit.

A senior commander present at the exercises pointed all this out to Capt Perebora. The matters touched upon became the subject of discussion at the next staff conference. It was decided to devote greater attention to drawing up a plan for commanders' training.

We must suppose that all of this will facilitate an increase in the quality of the training process, will enhance the effectiveness of competition and bring about greater exactingness in evaluating what has been achieved.

LOGISTICAL SERVICES AND SPECIAL TROOPS

CONSTRUCTION UNITS: IMPROVEMENTS IN 'ZLOBIN METHOD' DISCUSSED

Moscow KRASNAYA ZVEZDA in Russian 17 Dec 81 p 2

[Article by Engr-Col I. Nazarov, chief engineer of the construction directorate, Red Banner Belorussian Military District: "The Zlobin Method Means Effectiveness"]

[Text] Builders in the Red Banner Belorussian Military District, initiators of the All-Army Competition among Military Builders, have amassed a great deal of experience working according to the method introduced by Hero of Socialist Labor N. Zlobin. Today the "Zlobin variant" here is undergoing a new qualitative development--full-complement work brigades are being formed which function according to a flow-line-production, brigade contracting method.

The advantages of brigade contracting are now known to all. Here's just a single example in our district. A little over 20 percent of the district's military builders, formed into these kinds of production subunits [podrazdeleniye], are accomplishing about 40 percent of the construction and installation work. Additionally, the projects they've completed are submitted, as a rule, within the prescribed time frame and receive high evaluations.

Naturally, success in this matter depends not on the quantity of cost-accounting collectives, but on the extent to which their labor is properly organized. It doesn't mean much to give a brigade a different name. We have to be more exacting in our approach to the matter of full complementation of the collective, to the process of selecting its leader, organizing indoctrination work with personnel, production planning and providing supplies of materials and equipment for production.

We remember when brigade contracting was first introduced at the collective managed by M. Seregin, worker of the Soviet Army. They were in a hurry to call the collective a Zlobin one. But such things as the supply of materials and equipment, and the system of wages had not been fully thought out. This is why the military builders failed to meet their first quota.

This event served as a lesson for us. Now, when a new qualitative development arises in the "Zlobin variant" and--based on this--full-complement cost-accounting collectives are set up in accordance with requirements of the 26th CPSU Congress, we concern ourselves with how people have readapted themselves, speaking purely psychologically, to the work. Political workers and planners, as well as specialists in other

areas, conduct explanatory sessions with them and use examples to convince them of the advantages of the new method. We've gotten quite a lot of positive feedback from this. All over the country, for example, the brigades headed by USSR State Prize Winners N. Sasim, L. Volozhinskiy, M. Oleksyuk and V. Lyutkovskiy are famous.

These collectives accomplish many kinds of projects at construction sites. Being responsible for all the construction cycles, they consider all the work to be of equal importance. The increased responsibility of the collective enables them to significantly reduce time losses. As a rule, the military builders always have a reserve of projects and do not stand idle, even when there's a lack of one kind of construction or another, a shortage of materials. While erection of a building is taking place, for example, a work front is being prepared inside it for people to do the decorating. Naturally, each builder must have become proficient in several associated professions.

The director of a full-complement cost-accounting brigade is faced with special demands. Not only must he manage his own subordinates, but he must deal with subcontractors and transportation people. In a word, he must make use of his experience and display his organizational capabilities over the broadest spectrum. This is why the head of a cost-accounting brigade is, as a rule, either someone who is specially educated as a production foreman or a progressive, experienced worker with 10-15 years of service.

Convincing people of the effectiveness of a new method is only the first stage. They must be provided with everything necessary for their work. Without fail they are provided with documentation samples that have been worked up, tool and instrument inventories. All construction workers operating under a new system are well aware of their responsibilities and of their form of wage compensation, these being fixed by special statute.

It is understood that in order to accomplish the most diverse types of work, the full-complement brigade must have internal specialization--units [zveno] of fitters, carpenters, plasterers, etc. Another condition for successful operation is that the cost-accounting production subunit be sufficiently large. Sometimes it's necessary to work in three shifts. The number of brigade members and their level of expertise is determined by specific conditions. For our district the optimal number is 25-45 individuals. Each contracting brigade in the district has a clear view of its prospects--the annual plan for construction and installation projects.

We are striving to keep to a minimum the transfers of builders from one construction project to another. It is due to this alone, for example, that the brigade managed by L. Volozhinskiy saves about 200 man-days annually. Each cost-accounting brigade has a job authorization system of job order based on contract-plus-bonus for the entire complex of construction and installation projects. Workers know beforehand the volume of labor and the amount of wage they will receive. Each tries, of course, to complete the job order in time--including crane operators for tower cranes, whom we've begun to include in the brigades.

Military construction projects have their own specific character, and the problems confronting their primary contracting collectives are also distinctive. For example, they may consist of workers of the Soviet Army, military builders, or a combination of both. Our experience prompts us to say that the mixed-composition variety is

preferable. With them there is the possibility of establishing a genuinely creative collaboration between the head of the brigade and the construction subunit commander, between experienced workers and military builders, to promote the official cause. There are many examples of this. In the brigade managed by M. Gres', for example, soldiers are working under the command of Warrant Officer I. Nikitko, who has himself become an excellent organizer and capable builder. And it's small wonder. M. Gres' happens to be one of the best specialists in the district.

We devote particular attention to the work of political indoctrination in the contracting subunits, to the systematic training of their managers. The party groups are formed here. Seminars and conferences for heads of brigades are conducted based on the experience of the foremost construction projects. All of this yields results.

There's quite a bit of difficulty, however, with the cost-accounting brigades. The problems are related basically to construction supplies and materials, especially panel construction. Not long ago, for example, the brigade headed by N. Gorelikov was knocked off schedule by almost two months--there were no ceiling panels (which are supposed to be issued by enterprises of the construction industries of the USSR Ministry of Defense).

There are other kinds of difficulties as well. The bonus-payment system, in particular, for lowering the estimated construction cost for subcontracting brigades--medical technicians, electricians, etc.--has not been completely developed. This reduces the interest they might have in being economical and leads to a situation where certain brigades sometimes conclude contract agreements unwillingly.

The great deal of work accomplished in introducing multiple-skill, flow-line brigade contracting has been yielding noticeable benefit. District builders are successfully completing the first year of the five-year plan. We now see our job as that of increasing significantly the number of Zlobin brigades and bringing the provisions by which they are managed into accordance with today's requirements. We will always keep in mind--working according to the Zlobin method means working effectively.

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LOGISTICAL SERVICES AND SPECIAL TROOPS

FOLLOW-UP REPORT ON CONSTRUCTION COST-OVERRUNS

Moscow KRASNAYA ZVEZDA in Russian 18 Dec 81 p 2

[Editorial: "'No Need for Cost-Overruns': A Follow-Up Report"]

[Text] "No Need for Cost-Overruns"--such was the title of a critical article published in KRASNAYA ZVEZDA 29 October 1981. The article discussed the facts about wasteful use of materials in a number of construction organizations and enterprises of the Central Asian Military District.

Our editors received a reply from the Main Directorate for Military Construction of the USSR Ministry of Defense. The reply states that the article was discussed at a conference of managerial personnel of the Main Directorate for Military Construction. A working panel was formed to develop measures for economizing and efficiently utilizing raw materials, fuel and power resources, and other material resources.

By order of the commander of troops of the Central Asian Military District, Engr-Col L. Nikiforov--chief engineer of the district's construction directorate--received a reprimand; Engr-Lt Col V. Kapranov, deputy head of the directorate, received a stern reprimand. Engr-Maj V. Zabolotnyy, enterprise chief, received a warning for inadequate performance of duty. Engr-Lt Col V. Krivosheyenko, deputy chief of the work supervisors section for logistics, received a reprimand. In strict fashion Engr-Col V. Lyubimov, head of the district's construction directorate, was shown the low level of managerial leadership and poor supervision of the work of his subordinates.

A reply was also received from Col A. Malinin, who related measures taken to eliminate deficiencies. Items noted were the construction of a replacement for the outdated concrete and cement-solution plant, and the manufacture of prefabricated, reinforced-concrete products using effective types of fixtures and reinforcement.

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PERCEPTIONS, VIEWS, COMMENTS

SOVIET VIEWS ON ARMAMENTS BUILDUP

Moscow SOVIET MILITARY REVIEW in English No 2, Feb 82 pp 46-48

[Article by Yu. Tomilin; under the rubric "International Affairs": "Curbing the Arms Race"]

[Text]

THE 26TH CPSU Congress showed that the Soviet Union pursues a peace-loving policy designed to lessen the danger of war and to achieve a radical improvement in the international situation. Having re-affirmed the proposals for strengthening international security and curbing the arms race advanced in the last few years, the 26th Congress formulated a whole set of new ideas and constructive initiatives which are an organic continuation and extension of the Peace Programme produced by the 24th and 25th Party congresses.

Similar steps could have been expected from the West, above all from the USA who are responsible for the serious worsening of the international situation. However, Washington has charted a course for accelerating the arms race.

One of the main theses of this "platform" consists in the following: before opening talks with the USSR, the USA must increase its military potential. This is eloquently evidenced by the USA's skyrocketing military spending. For instance, in the 1981 fiscal year its war budget exceeded 180,000 million dollars. The Republican Administration has got Congress to approve military allocations to a sum of over 226,000 million dollars in 1982.

Under the pretext of alleged US military inferiority the American ruling circles have been persistently driving for military superiority over the USSR. In a contribution to "Pravda" Marshal of the Soviet Union D. F. Ustinov, member of the CPSU Central Committee Politbureau, Minister of Defence of the USSR, wrote that the Reagan Administration had used this excuse to launch a crash

programme of strategic and other armaments with a view to securing a position of "superior strength" for future talks with the USSR.

The attempts of the West to change the balance of forces in its favour will inevitably evoke the appropriate response on the part of the other side. That these attempts are hopeless was confirmed by L. I. Brezhnev in the Report to the 26th CPSU Congress:

"At one time we offered to ban the development of the naval Trident missile system in the United States and of a corresponding system in our country. The proposal was not accepted. As a result, the United States has built the new Ohio submarine armed with Trident-1 missiles, while an analogous system, the Typhoon, has been built in our country. So, who has stood to gain?"

To avoid a continuation of this purposeless and costly competition L. I. Brezhnev proposed to reach agreement on limiting the deployment of new submarines — the Ohio type by the USA, and similar ones by the USSR. The USSR also stated its readiness to ban modernisation of existing and development of new ballistic missiles for these submarines. However, the USA has not yet replied to this proposal.

On the contrary, the USA has been forcing the development of new weapon systems, in particular those designed for use in space. It is carrying out a vast programme of preparations for chemical warfare. More than that, President Reagan has issued orders for the full-scale manufacture of the neutron bomb, the most inhuman variety of mass destruction weapons. This cynical step has precipitated an outburst of indignation all over the world. Politicians, public leaders and the press of many countries have justly appraised this decision as a grave threat to universal peace.

Way back in March 1978 the USSR, Bulgaria, Hungary, the GDR, Mongolia, Poland, Romania and Czechoslovakia submitted to the Disarmament Committee a joint draft convention on banning the manufacture, stockpiling, deployment and employment of the neutron weapon. This document is still being examined by the Committee.

The Reagan Administration has brought forth another thesis to the effect that examination of any question bearing on arms limitation should be linked up with other problems or developments in international life. Both President Reagan and US Secretary of State Haig have repeatedly emphasised this thesis.

Washington's attempts to hinge the solution of vital problems confronting humanity on the gra-

tification of its selfish empire-building ambitions, to claim to be the ruler of peoples' destinies and to dictate its will to them are bound to fail.

While the aggressive imperialist circles are provoking a situation of militaristic psychosis, the USSR is displaying poise and a sober approach to international affairs. It has been seeking for practicable constructive solutions to the most difficult problems of world politics. Proceeding from a profound analysis of the international situation the 26th CPSU Congress concluded that the USSR should conduct an active dialogue with the USA at all levels. It was said at the congress:

"We are prepared for a dialogue."

The solution of the problem of diminishing the war threat and limiting arms depends largely on the outcome of the Soviet-American dialogue. Today this task has acquired particular importance and urgency. The rapid scientific and technological progress has revolutionised the development of military equipment to the extent that weapons are being improved at a constantly increasing rate.

In seeking to curb the arms race the USSR has concentrated its main effort on limiting nuclear weapons. This constitutes a big and difficult complex of questions. The problem of strategic arms limitation and reduction has been singled out because it is of an extraordinary urgency.

Soviet-American strategic arms limitation talks were first opened in November 1969. The main result of the first round of talks (commonly known as SALT-1) was the treaty on the limitation of anti-missile defence systems and provisional agreement on certain measures on the limitation of offensive strategic arms. These documents were signed in May 1972 at a Soviet-American summit in Moscow. The talks were then continued. This time they resulted in the signing in Vienna, in 1979 of a treaty on the limitation of offensive strategic arms and a protocol to the treaty. This time too the documents were signed at a Soviet-American summit meeting. Though this document could have become an effective obstacle to further accumulation of the most destructive and costly types of weapons, it has not come into force and the American side is entirely responsible for this.

As soon as the Reagan Administration came to power, they declared they needed time to make a thorough study of the SALT problem. They said they needed at least half a year for that study. At the same time the spokesmen for the administration made statements revealing the intention to

revise the SALT-2 Treaty which had been worked out with such difficulty. More than that, US Secretary of State Haig let it be understood that the USA sees no possibility of conducting further SALT talks.

The USA has been making particular efforts to secure for itself military superiority in Europe. The decision taken by the NATO Council in December 1979 on the manufacture and deployment in Western Europe of new medium range US nuclear missiles is aimed at achieving this end.

The following question was asked at the 26th CPSU Congress:

"A kind of vicious circle has appeared, with the actions of one side precipitating counter-measures by the other. How to break this chain?"

The USSR's answer is the proposal to impose forthwith a moratorium on the deployment of new medium range nuclear missiles in Europe both by the NATO countries and the USSR. This means to freeze quantitatively and qualitatively the existing level of such weapons, including, of course, the US forward-based nuclear weapons in that region.

One of the reasons why the USA insists on accelerated deployment of new US nuclear missile systems in the West European countries is that it hopes to divert retaliation from its own territory. From the military-strategic point of view a fundamentally new feature of the Pershing-2 ballistic and Tomahawk ground based cruise missiles which are to be deployed in West European countries is that they will be capable of hitting strategic targets in Soviet territory. It takes an intercontinental missile launched from US territory 20-30 minutes to reach a target in the USSR, whereas a Eurostrategic missile launched from Western Europe will strike its target in 5-6 minutes. The deployment of these missiles is obviously an attempt to tip the balance in favour of the USA at the expense of the West European countries.

In the aforementioned article the Minister of Defence of the USSR stated that "the USA should realise that the present-day world is totally different from what it used to be. The USA is not the only country that wields power. America's drive for military superiority over the USSR is only jeopardising stability in the world and endangering its own security."

Washington's hypocritical attempts to justify the NATO Council's decision to deploy new US missiles in Western Europe by the desire to restore the balance of forces in the region cannot

mislead peace-lovers. The meetings of NATO bodies in May 1981 have shown that, in defiance of West European opposition to the US plans, Washington has again managed to force its viewpoint on its allies. The USA is persistently pursuing the line of turning Western Europe into a launching pad for new US missiles and the West Europeans into hostages of the Pentagon's nuclear strategy.

On November 18, 1981 just before the Soviet-West German summit meeting, President Reagan attempted to stem the anti-war wave in Europe. To do so he made an announcement on the so-called "zero option" in medium-range nuclear missiles. What he proposed was that actually the Soviet Union should disarm unilaterally. The USSR should dismantle its SS-4, SS-5, SS-20 missiles, whereas the USA should give up the idea of deploying "Pershing-2" and cruise missiles in Europe. The purpose is to nullify the Soviet medium-range nuclear missile potential, while preserving the USA's missiles long deployed in Europe wholly intact.

This purely publicity trick is obviously unacceptable to the USSR. It has deceived nobody.

In the FRG L. I. Brezhnev put forward new, far-reaching proposals, which serve one aim — that of reaching a mutually acceptable agreement, of delivering Europe from the danger of nuclear conflagration. These proposals are addressed not only to the FRG and other West European countries. They are also addressed to the United States in connection with the commencement in Geneva on November 30 of Soviet-American talks on medium-range nuclear weapons in Europe.

The substance of the new Soviet proposals is as follows:

First, the Soviet Union has considerably complemented its earlier proposals on a moratorium on the deployment of the new and the modernisation of the existing medium-range nuclear weapons in Europe for the period while the talks on these types of weapons are underway. The Soviet side expressed readiness, provided the opposite side agrees to such a moratorium, to reduce a certain part of its medium-range nuclear weapons in the European part of the USSR unilaterally, advancing towards the lower level on which the USSR and the USA could agree as a result of the talks.

Second, the Soviet Union's intention was stressed to work in the course of the Geneva talks for radical reductions of medium-range nuclear weapons by both sides, not by dozens but by hund-

reds of units. In so doing of course, it is necessary to take account both of the American forward-based weapons and the corresponding nuclear weapons of Britain and France.

Third, the USSR would be prepared to reach agreement also on the complete renunciation by the two sides, the West and the East, of all the types of medium-range nuclear weapons aimed at targets in Europe.

Moreover, as L. I. Brezhnev stressed, the Soviet Union favours in general that in the long run there be no nuclear weapons — either medium-range or tactical ones—in Europe. This would be a true "zero option" fair for all sides.

The Soviet Union has offered practicable ways for making progress in solving questions of strengthening peace, limiting arms and preventing nuclear war. The realisation of any Soviet initiative would mark an important step in building up the edifice of peace on earth. Rational solution of the vital problems of war and peace which are confronting mankind would help relax international tensions. Achievement of this end requires fruitful cooperation of all states, an active Soviet-American dialogue at all levels, immediate talks on principles of equality. It is important to abandon all attempts to upset the military equilibrium and to dictate one's will to other countries. This is the purpose of the USSR's foreign policy programme.

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PERCEPTIONS, VIEWS, COMMENTS

'KRASNAYA ZVEZDA' ON 'RADIOELECTRONIC WARFARE'

Objectives of NATO Described

PM091615 Moscow KRASNAYA ZVEZDA in Russian 21 Jan 82 p 3

[First part of article by candidate of military sciences Col Engr V. Nazarenko under the rubric: "Military-Technical Thinking Abroad": "Confrontation on the Airwaves"]

[Text] The combat potential of weapons and military equipment has increased extraordinarily thanks to the extensive introduction of various achievements of radioelectronics. Radioelectronics has now essentially become the material and technical base for all troops and combat equipment control systems on land, in the air and at sea. The quality of intelligence, efficiency and promptitude in control of troops and precision of weapons targeting and consequently success in battle depend virtually entirely on the stable and reliable operation of radio-electronic facilities. In the opinion of foreign specialists, that explains the desire of opposing sides to disrupt to the utmost the operation of their opponent's radioelectronic facilities and at the same time to assure the stability of their own apparatus's resistance to an adversary's action.

1. Undeclared War

"For many years," the U.S. magazine SIGNAL wrote, "it was believed that reconnaissance guaranteed security. However, it is now the turn of radioelectronic warfare, which came into being with the emergency of the deliberate jamming of radio communications. Many people initially underestimated the reality of this threat, believing that they would ultimately succeed in avoiding jamming and ensuring communications. However, experience of combat operations forced us to abandon former concepts of the utilization of radioelectronic facilities in combat. Since then radioelectronic warfare has become a most popular topic among the U.S. armed forces and in the military-industrial sphere. And not so much a topic for discussion as for the strenuous deployment of an extensive technical arsenal of radioelectronic combat means. The Pentagon's inherent passion for bombast gave rise to a slogan like this: "Radioelectronic warfare is not declared by anyone, never ends, is waged covertly and knows no boundaries in space or time."

Essentially this form of words meant a gamble on the all-round and unrestrictedly broad deployment of a powerful arsenal of technical facilities for radioelectronic

combat (footnote: This term has recently been established.). The concepts "radio warfare," "electronic warfare," and "radioelectronic warfare" can also be encountered in foreign literature. While, for instance in fiscal 1956-1957, about \$400 million--more than in World War II as a whole--were spent on the development of these facilities in the United States, in fiscal 1969-1970 the figure was already \$900 million. The NATO countries' expenditure on equipping their armed forces with radioelectronic combat equipment has been growing even more rapidly in recent years. According to the estimate of U.S. specialists, in 1983 this expenditure will already total \$5.2 billion, of which the United States will account for over 80 percent.

How do NATO military specialists conceive of confrontation on the airwaves? What objectives are they seeking to attain, and by what means?

Official NATO documents view radioelectronic combat as an amalgam of tactical and technical measures to detect and disrupt the operation of the radioelectronic systems and troop and weapon control facilities used by the enemy and also to ensure the stable operation of their own troops' analogous systems and facilities under conditions of deliberate and reciprocal jamming. It is in accordance with this definition that radioelectronic reconnaissance (electronic support), radio-electronic suppression (electronic countermeasures) and radioelectronic defense (electronic counter-countermeasures) are organized.

Radioelectronic reconnaissance includes scanning for, detecting, identifying, and locating enemy electronic facilities and providing target indication for jamming them. In principle any station whose operation is based on the reception of an electromagnetic signal can be jammed. The difficulty lies in detecting the emission, determining its parameters and establishing the type of station involved on the basis of its signal. The reliability of identification is reduced considerably if the station's emission parameters and operating pattern are varied from time to time. The use of computer equipment in the course of processing the flow of information can ensure the successful solution of reconnaissance tasks, especially in those cases where numerous radio communications means located in a specific region have almost identical parameters.

Radioelectronic suppression is the deliberate action of electromagnetic (acoustic) jamming. In other words, actions aimed at disrupting or disorganizing the operation of radioelectronic control systems, reducing the efficiency and combat potential of weapons, and disrupting the interaction of troops. So-called radio deception [radioobman] measures are also envisaged. Radio deception is effected, for instance, by transmitting deliberately false information on one's own (combat) radio nets, by operating phony radio communication facilities of one's own troops, by imitating the operation of the enemy's radio facilities, by the transmission of false information on the enemy's radio nets, and so forth. The aim of radio deception is to present the enemy with a false idea of the real grouping and operation of one's own troops and to give rise to the desired reaction from the enemy in response.

Radioelectronic defense sets itself the task of complicating radioelectronic reconnaissance for the enemy and preventing the suppression of its own radio facilities by jamming or missiles which home in on sources of radiation.

Despite the difference in objectives and means inherent in each element of the struggle in the air, they are all interdependent and interrelated, since it is impossible to disrupt the work of modern comprehensive control systems without coordinated action against all the most important enemy radioelectronic targets.

At the present stage of the armed forces' development radioelectronic combat is an inalienable component of the combat operations of the ground forces, air force and navy. The attainment and retention of superiority in this field is regarded in NATO as one of the most important factors of modern warfare predetermining the attainment of tactical, operational and strategic objectives. Some statements sometimes assert that the retention of the advantage in the sphere of radioelectronic combat can be equated, in terms of its significance, with the attainment of superiority in the air in World War II.

2. Over the Battlefield

Of all the NATO countries' armies, foreign specialists note, the U.S. armed forces are the best trained to wage radioelectronic warfare and best equipped with the relevant facilities. Moreover, units and subunits of the majority of the bloc's countries are armed with U.S. equipment and the principles of their combat operation are the same.

In the U.S. ground forces radioelectronic combat and surveillance groups and battalions have accordingly been introduced into the composition of U.S. corps and divisions and the pool of technical facilities for radioelectronic combat has been virtually completely renewed. To ascertain, within a realistic space of time, the enemy's location, composition and direction of advance and the nature of his operations in tactical and operational depth, it is believed abroad that radio and radiotechnical surveillance should not only detect operating radioelectronic facilities and identify their types but also determine their location with a speed and precision adequate for employing artillery fire.

Radio surveillance and target position finding in a radioelectronic combat and surveillance battalion is carried out by a ground-based complex consisting of five stations which can be transported and dispersed over the terrain: Two for central processing and control and three for long-distance measurements. The complex's productivity is six bearings a minute. The corps radio surveillance and position finding complex includes two stations for central processing and control and four for long-distance measurements.

It is well known that the range of radio surveillance is strongly influenced by radio wave propagation conditions. For instance, in the ultrashort wave band it is limited to the line of sight, which for ground-based stations is 30-40 km. But in the short wave band, for instance, if the station is operating on surface wave, the depth of surveillance reaches 80-100 km and if it is working on a reflected wave--several hundreds and even thousands of kilometers. The press has reported that radiotechnical surveillance stations can detect an operating ground-based radar at a distance of up to 30 km and determine its position to within 50 meters.

To jam ground-based radio communication facilities, the U.S. Army uses truck-mounted and helicopter-mounted stations. These means are considered completely up to date. For instance, a truck-mounted station has an average power of 1.5 kilowatts and can suppress AM or FM radio communications at a distance of up to 50 km.

In addition to these stations for suppressing ground-based radio communications the U.S. ground forces' arsenal includes means for jamming on board (helicopter or aircraft) surveillance and weapon control radars, and multifunction jammers for use against ground-based radars and ultrashort wave radio and radiorelay communications means, and automatic jammers for use against the radar pulse fuses of artillery shells, aerial bombs and missiles.

Foreign specialists regard the following as the main means of radioelectronic defense: The limiting of emissions, operating in brief sessions, the utilization of high-speed apparatus, the strict observance of the rules of radio traffic, the use of coders, operating on directional antennae and so forth.

Description of Tactics, Equipment

PM151123 Moscow KRASNAYA ZVEZDA in Russian 29 Jan 82 p 3

[Second and final part of article by Col Engr V. Nazarenko, candidate of military sciences, under the rubric: "Military Technical Thought Abroad": Confrontation on the Airwaves"]

[Text] 3. On the Seas and Oceans

In the Western states' naval forces electronic intelligence, electronic and hydroacoustic jamming and antijamming measures began to acquire decisive significance just before and during World War II. The largest operation on this plane was undertaken during the Anglo-U.S. assault landing in 1944 on the Normandy coast. Through the use of bomb strikes and active and passive jamming, the allies were able to totally disrupt the German-fascist grouping's coastal system of radar observation and artillery fire control. Along with aircraft-based radio jamming devices, ship-based ones were also used here: active jammers were installed on 262 ships while on 42 of these ships passive jammers were installed in addition. Extensive use was made of floating metal corner reflectors to simulate large ships and of false targets consisting of dipole reflectors.

In the postwar period abroad the generalization of experience of the use of this type of technical facilities for combat and operational backup for naval forces continued as did their further development. The aim pursued here was to create shipboard systems capable of detecting various enemy sources of emission and of jamming or disrupting their operation and to ensure the protection of their own radio facilities against jamming by the opposite side.

At the same time electronic warfare on the sea and ocean expanses has acquired its own specific features. One of them has been generated by the need to ensure defense against antiship missiles. The complication here is that, as foreign specialists note, missiles traveling at low altitude are very hard to detect

promptly and to destroy by conventional means. This fact constituted a weighty argument in favor of equipping ships with modern electronic countermeasures [ECM] complexes.

So far three versions of these complexes for equipping ships of different classes have been developed and their series production has been initiated. In the opinion of foreign observers, the version intended for installation on cruisers, large assault vessels and certain large naval auxiliary vessels is the most sophisticated. It is a fully automated complex including a broadband receiver, control and display units, a computer, and a multimode jammer designed to block guided missile guidance radar, active homing heads and ship and aircraft facilities, too. After processing the information received, the onboard computer works out the optimum jamming option or uses a program fed into the computer's memory beforehand.

To protect aircraft carriers from cruise missiles launched from surface ships, submarines and ground-based launchers, a special system has been created which has been tested on board the aircraft carrier Enterprise. The presence of two groups of tranceiving antennas ensures the possibility of jamming in virtually any direction. The system's logic circuits [logicheskoye ustroystvo] make it possible to exclude one's own ECM signals from processing and to determine automatically the emission parameters of the enemy's missiles.

In addition to electronic countermeasures installed directly on ships, the U.S. Navy also makes extensive use of jamming stations on so-called "forward platforms"--that is, on buoys, helicopters, ship-based drone aircraft and special missiles. This method of utilizing electronic countermeasures, in the opinion of foreign specialists, makes it possible to "divert" enemy missiles from one's own ships and to simulate false targets.

Incidentally, such targets are created not only by active jamming stations but by passive means--dipole reflectors and sources of thermal radiation--and special installations have been created for scattering these from ships.

As a whole, the foreign press notes, a broad ECM arsenal has become an essential attribute of combat operations on the seas and oceans.

4. From Different Altitudes

Traditionally, the air forces have the most developed system of airwave warfare. This is explained by the nature of their operations, level of technical equipment, and the heavy dependence of the effectiveness of their combat application on the stability of the operation of various pieces of radioelectronic apparatus. Specialists assert that losses of U.S. aircraft in the war against Korea would have been three times greater if ECM had not been used. However, the radical breakthrough in their development began after 1956 when, it was noted abroad, anti-aircraft guided missiles made their appearance in the Socialist Republic of Vietnam's air defense system and U.S. aircraft began to sustain heavy losses.

It was then that the practical implementation began of the program codenamed "Wild Weasel." The gist of the program consisted in the use of special air force formations to combat the enemy's ground-based control systems for fighter aircraft

antiaircraft artillery, and missile complexes. Initially about 40 F-105G aircraft and several EB-66 aircraft were fitted out according to this program. In particular each F-105G had an emission signal detector, an underslung container with ECM apparatus, and four Shrike antiradar missiles or two standard ARM missiles.

Experience in using aircraft fitted out according to the "Wild Weasel" program was a spur to the creation of similar facilities for combat operations under European theater conditions. The F-4E fighter, which became known, after modernization, as the F-4G, was chosen as the basic aircraft. It is equipped with a detector, signals analyzer, computer, situation indicator, automatic modular jammer, Shrike, standard ARM or HARM antiradar guided missiles and Sparrow or Sidewinder air-to-air missiles. It is planned to have 116 F-4G aircraft, some of which are already in use by the U.S. Air Force Command in Europe. The possibility is being studied of replacing the F-4 with F-16 or F-15 aircraft reequipped in line with the "Wild Weasel" program.

Alongside the creation of specialized formations, the United States, on the basis of the results of an analysis of combat operations in Southeast Asia, adopted a number of decisions aimed at improving aircraft's individual ECM facilities. Comprehensive weapons control and antijamming systems began to be installed on them, making it possible not only to detect, identify, and locate enemy radar but also to lead the aircraft automatically to the vicinity of the radar's location, with the subsequent issue of a command to use appropriate jamming means.

The tactics for using active jamming have changed. Containerized stations [konteynernyye stantsii] with several transmitters operating on different regimes on different frequency bands have appeared on board aircraft. In the opinion of foreign specialists, the possibility of rapidly replacing these containers according to the specific situation has substantially increased flexibility in resolving a combat task.

In May 1966 U.S. aircraft in Vietnam first made use of what was then a new weapon--the Shrike antiradar missiles with a passive radar homing head, which were used to destroy operating ground-based and ship-based air defense stations. Foreign specialists listed among the Shrike's shortcomings its short range (15-16 km) and substantial misses when target emission ceases. In the search to improve the characteristics of this type of weapon, the standard missile was developed, with a range of up to 50 km and a homing system capable of "remembering" the direction toward the radar station after it has been switched off. At present it is planned to replace the Shrike and the standard with the HARM missile, which has a new homing head with a broader frequency band.

In the opinion of foreign military specialists, the use of nonrecoverable active jammers is promising. To deliver them to the ejection region it is proposed to use manned and unmanned aircraft, guided and unguided missiles, air balloons and aerostats.

Passive jamming devices dropped from aircraft create false readings on the radar screens, camouflage sectors of airspace, and destroy missile radar fuses at a safe distance. In the air war against Vietnam and in the Near East dipole

reflectors were used, including so-called "active" dipoles capable of intensifying and retransmitting a signal in the opposite direction.

The desire to accelerate to the maximum the enhancement of the combat potential of the air force and, indeed, of other branches of the armed forces, is leading not only to the expansion of the ECM arsenal and the constant increase in the complexity and cost of ECM but also to the immoderate growth of expenditure on the arms race.

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